SEQUENCE LISTING

<110> Houghton, Raymond L.
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Persing, David H.

<120> COMPOSITIONS AND METHODS FOR THE THERAPY
AND DIAGNOSIS OF BREAST CANCER

<130> 210121.470C11

<140> US
<141> 2002-02-13

<160> 627

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aaagaacaag attcaa 256

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<212> DNA
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<212> DNA
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<210> 41
<211> 676
<212> DNA
<213> Homo sapien

<400> 41
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ttccccattt aaattttaca ttacttgcca agaaaaaaaa aaaattaaaa ctcaagttac 180
ttgaagcctg gacacacttc catgattagc cggctaggt aaaagttggt ggctttattc 240
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tccataattt tcccaaaatg gttggaggag agggtaaaat ctcaacatga gtttcaaagt 480
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gccccatccc cagctaggag aatggaaatg gaactttaa ttgcccagtg ggtgtgaaag 600
tgggctgaag cttggttggt actgaattct ctaagaggtt tcttctagaa acagacaact 660

cagacctgcc cgggcg 676

<210> 42
<211> 468
<212> DNA
<213> Homo sapien

<400> 42
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ctcagccctg gtgggcagag aggtagggat ggggctgtgg ggatagtgag gcatcgcaat 180
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aaaaccccct gcaaagccca gcttgaaacc ttcacttagg aacgtaatcg tgtcccctat 420
cctacttccc cttcctaatt ccacagacct gcccgggcgg ccgctcga 468

<210> 43
<211> 408
<212> DNA
<213> Homo sapien

<400> 43
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ttcatttcag gagagcagca gttaaacccg tggattttgt agttaggaac ctgggttcaa 120
acctctttcc actaattggc tatgtctctg gacagttttt ttttttttt ttttttttaa 180
acccttttctg aactttcact ttctatggct acctcaaaga attgttgtga ggcttgagat 240
aatgcatttg taaagggtct gccagatagg aagatgctag ttatggattt acaaggttgt 300
taaggctgta agagtctaaa acctacagtg aatcacaatg catttacccc cactgacttg 360
gacataagtg aaaactagcc cgaagtctct ttttcaaatt acttacag 408

<210> 44
<211> 160
<212> DNA
<213> Homo sapien

<400> 44
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caacttctcc gctttggcaa acaccgtcac tcttgctgga 160

<210> 45
<211> 231
<212> DNA
<213> Homo sapien

<400> 45
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ccccaataag tcgatcagca aggctgacag gctgtgagga aaccccggcc ttgtagcctg 120
tcacctctgg ggggatgatg actgcctggc agacgtaggc tgtgatagat ttgggagaaa 180
acctgactca ccctcaggaa tccggaggtc ggtgacattg tcggtgcaca c 231

<210> 46
<211> 371

<212> DNA
<213> Homo sapien

<400> 46
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tcaattgcct t 371

<210> 47
<211> 261
<212> DNA
<213> Homo sapien

<400> 47
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gcaggattcg atgagattga gcaagatctt actcagagat ttgaagaaaa gctgcaggaa 180
ctagaaagtg tttccaggga tcccagcaat gagaatccta aacttgaaga cctctgcttc 240
atcttacaag aagagtacca c 261

<210> 48
<211> 701
<212> DNA
<213> Homo sapien

<400> 48
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agagattatt attcttgatg tttgctttgt attggctaac aaatgtgcag aggtaataca 180
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tgtagtgcca ttagaaactg tgaatttcca aataaatttg a 701

<210> 49
<211> 270
<212> DNA
<213> Homo sapien

<400> 49
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tatggaaata gatatttgtg cagctcaatt tatgcagaga ttaaatgaca tcataatact 180
ggatgaaaac ttgcatagaa ttctgattaa atagtgggtc tgtttcacat gtgcagtttg 240
aagtatttaa attaaccact cctttcacag 270

<210> 50
<211> 271
<212> DNA
<213> Homo sapien

<400> 50
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acaataaaaa gttgaacatg cgcatatcta tgcatttcac agaagattag taaaactgat 180
ggcaacttca gaattatttc atgaagggta caaacagtct ttaccacaat tttcccatgg 240
tcttatcctt caaaataaaa ttccacacac t 271

<210> 51
<211> 241
<212> DNA
<213> Homo sapien

<400> 51
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aatggcttat ccccaccgcc atgtaagtta ccatgcctgt ctcctccctc ctacacattt 120
ccagctcctg ctgcagttat tcctacagaa gctgccattt accagccctc tgtgattttg 180
aatccacgag cactgcaggc cctccacagc gttactaccc agcaggcact cagctcttca 240
t 241

<210> 52
<211> 271
<212> DNA
<213> Homo sapien

<400> 52
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tgcatgctgc ttgctgtaag ttacgatttg gcttcactag ctcaaatttt ttcactccac 180
caaaagataa ggcacaggcc cgtttgtcca atcaagtttg ctgaaaatac tgcagcctga 240
gtgtagacaa acttcccctg aatttgctag a 271

<210> 53
<211> 493
<212> DNA
<213> Homo sapien

<400> 53
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cagatagttt tcgtgccaac aggaactggc acatctagca ggttcacggc atgacctttt 240
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agggcccaat tcg 493

<210> 54

<211> 321
<212> DNA
<213> Homo sapien

<400> 54
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actgaatgtc aataaactct gtgattttgt taggaagtaa aactgggatc tatttagcca 120
ctggtaagct tctgaggtga aggattcagg gacatctcgt ggaacaaaca ctccccactg 180
gactttctct ctggagatac ccttttgaat atacaatggc cttggctcac taggtttaaa 240
tacaaacaag tctgaaaccc actgaagact gagagattgc agcaatattc tctgaattag 300
gatcgggttc cataactcta a 321

<210> 55
<211> 281
<212> DNA
<213> Homo sapien

<400> 55
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attaacatgc cacacgaaga ctgcattaca gctctctgtt tctgtaatgc agaaaaatct 120
gaacagccca ccttggttac agctagcaaa gatggttact tcaaagtatg gatattaaca 180
gatgactctg acatatacaa aaaagctgtt ggctggacct gtgactttgt tggtagttat 240
cacaagtatc aagcaactaa ctgttgtttc tccgaagatg g 281

<210> 56
<211> 612
<212> DNA
<213> Homo sapien

<400> 56
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caaagaattg gtagtagggg gagaacagag aggagctggg ctatgggaaa tgatttgaat 360
aatggagctg ggaatatggc tggatatctg gtactaaaaa agggtcttta agaacctact 420
tcctaatctc ttccccaatc caaaccatag ctgtctgtcc agtgctctct tcctgcctcc 480
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gcagggttgg gggagaggct gaggagagtg tgacatgtgg ggagaggacc agacctgccc 600
gggcggccgt cg 612

<210> 57
<211> 363
<212> DNA
<213> Homo sapien

<400> 57
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gacaagacat ttgacttccc tttctccttg tctataaaat gtggacagtg gacgtctgtc 120
acccaagaga gttgtgggag acaagatcac agctatgagc acctcgcacg gtgtccagga 180
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aagtgaatac atctgactgt gctccactcc aacctccagc gtggatgtcc ctgtctgggc 300
cctttttctg ttttttattc tatgttcagc accactggca ccaaatacat tttaattcac 360

cga 363

<210> 58
<211> 750
<212> DNA
<213> Homo sapien

<400> 58
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ctgcgccctt ctcccaactc gcgtgcctca cagaacccag gtgctgcaca gccccgagat 120
gtggcccttc ttcaggaaag agcaaataag ttggtccaag tacttgatgc ttaaggaata 180
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tggaggctgc agatgaggac ctgcccgggc 750

<210> 59
<211> 505
<212> DNA
<213> Homo sapien

<400> 59
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gctaagggcg aattctgcag atatc 505

<210> 60
<211> 520
<212> DNA
<213> Homo sapien

<400> 60
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ggacctgccc gggcggccgc tcgaaagggg cgaattctgc 520

<210> 61
<211> 447
<212> DNA
<213> Homo sapien

<400> 61
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tctgcagata tccatcacac tggccgg 447

<210> 62
<211> 83
<212> PRT
<213> Homo sapien

<400> 62
Lys Lys Val Leu Leu Leu Ile Thr Ala Ile Leu Ala Val Ala Val Gly
1 5 10 15
Phe Pro Val Ser Gln Asp Gln Glu Arg Glu Lys Arg Ser Ile Ser Asp
20 25 30
Ser Asp Glu Leu Ala Ser Gly Phe Phe Val Phe Pro Tyr Pro Tyr Pro
35 40 45
Phe Arg Pro Leu Pro Pro Ile Pro Phe Pro Arg Phe Pro Trp Phe Arg
50 55 60
Arg Asn Phe Pro Ile Pro Ile Pro Ser Ala Pro Thr Thr Pro Leu Pro
65 70 75 80
Ser Glu Lys

<210> 63
<211> 683
<212> DNA
<213> Homo sapien

<400> 63
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aaaaacagtg tgaaatcaca ctttggtctg taaacatatt tagctttgct tttcattcag 240
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tttgaacgca tctttgtaaa tgt 683

<210> 64

<211> 749
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 534
<223> n = A,T,C or G

<400> 64
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tagtcatact cacacaaagg gagaaattta aactcgaacc aagcaaaagg cttcacggaa 720
atagcatgga aaaacaatgc ttccagtgg 749

<210> 65
<211> 612
<212> DNA
<213> Homo sapiens

<400> 65
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<210> 66
<211> 703
<212> DNA
<213> Homo sapiens

<400> 66
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tgtttgcata tatgagaggg tacctgcccg ggcggccgct cga 703

<210> 67
<211> 1022
<212> DNA
<213> Homo sapiens

<400> 67
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ggggaaaacg gtttgcaaca ttctcctcct tgtaggaggc gagctctgtc tcactagcta 840
tgcccctcca tcaattcacc ctatactcag atcagaagct gagtgtctga attacagtat 900
attttctaaa ttcctagccc ctgctggtga atttgccctc ccccgctcct ttgacaattg 960
tccccgtgtt cgtctccggg ccctgagact ggccctgctt atcttgctga ccttcatcct 1020
ct 1022

<210> 68
<211> 449
<212> DNA
<213> Homo sapiens

<400> 68
ccagatccat tttcagtggt ctggatttct ttttattttc ttttcaactt gaaagaaact 60
ggacattagg ccactatgtg ttgttactgc cactagtgtt caagtgcctc ttgttttccc 120
agagatttcc tgggtctgcc agaggcccag acaggctcac tcaagctctt taactgaaaa 180
gcaacaagcc actccaggac aaggttcaaa atggttacaa cagcctctac ctgtcgcccc 240
agggagaaag gggtagtgat acaagtctca tagccagaga tggttttcca ctccttctag 300
atattcccaa aaagaggctg agacaggagg ttattttcaa ttttattttg gaattaaata 360
ctttttttccc tttattactg ttgtagtccc tcacttggat atacctctgt tttcacgata 420
gaaataaggg aggtctagag cttctattc 449

<210> 69
<211> 387
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<222> 22, 26, 36, 45, 54, 56, 62, 63, 73, 92, 98, 105, 155, 174, 194, 302, 312, 358, 375, 378, 381
<223> n = A,T,C or G

<400> 69
gcccttagcg tgggtcgcgg cncgangtct ggagcntatg tgatncctat ggtncncagg 60
cnnatactgc tantctcatt tattctcctg cnacctantc ctctnctctg gaatcacacc 120
attattgcct gttaacactg gactgtgagt accangcaat taatttgcac caanaaagtt 180
gagggtatta tcanatattg caatctgtac agagggaaga tgatttcaat ttgatttcaa 240
cttaaccttc atctttgtct gttaacacta atagagggtg tctaataaaa tggcaaattt 300
gngatctcat tnggtataac tacactcttt ttcacagatg tgatgactga atttccanca 360
acctgcccgg gcggncgntc naagggc 387

<210> 70
<211> 836
<212> DNA
<213> Homo sapiens

<400> 70
tattccattt acaaaataaa ttcagccctg cactttcttt agatgccttg atttccagaa 60
tggagcttag tgctactgaa taccctggcc acagagccac ctcaggatat tcttttctcc 120
accctagttt atttatttat agatatctgt ttacaaagtc tgtagtaaat cctgatgctg 180
accatctgaa atgtactttt tttctgaatg ctgtttcaat ctaaaatagc agcttttgag 240
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taaatatgcc gaagccaagc acacagtctt tctaaagtgt gtgtatgttt gtgtgaatgt 360
gaatgatact gatcttatat ctgttaaaag ttgttttaaa aagctgtggc atcccattgt 420
tcatatttgc caagtcttct gtaaagatgt ctaggacgaa atattttatg tgctaatgca 480
tgtatttgta aaccagattt gtttaccact caaaattaac ttgttttctt catccaaaaa 540
agtttatttc ttccacgtac ttaaattttc tgtgtgggta taatatagct ttctaatttt 600
tttctttcac aaaggcaggt tcaaaattct gttgaaagaa aaatgctttc tgaaactgag 660
gtataacacc agagcttgct gtttaaagga ttatatgatg tacatcagtt ctataaatgt 720
gctcagcagt ttaacatgtg aatcctgttt taaagtgctc agatttcaac tgtgtaagcc 780
attgatataa cgctgtaatt aaaaatgttt atatgaaaaa aaaaaaaaaa aaaaaa 836

<210> 71
<211> 618
<212> DNA
<213> Homo sapiens

<400> 71
gttgcagtga gctcaagtgt tgggtgtatc agctcaaaac accatgtgat gccaatcatc 60
tccacaggag caatttgttt acctttttt tctgatgctt tactaacttc atcttttaga 120
tttaaatcat tagtagatcc tagaggagcc agtttcagaa aatatagatt ctagttcagc 180
accacccgta gttgtgcatt gaaataatta tcattatgat tatgtatcag agcttctggt 240
tttctcattc tttattcatt tattcaacaa ccacgtgaca aacactggaa ttacaggatg 300
aagatgagat aatccgctcc ttggcagtgt tatactatta tataacctga aaaaacaaac 360
aggtaatttt cacacaaagt aatagatatc atgacacatt taaaataggg cactactgga 420
acacacagat aggacatcca ggttttgggt caatattgta gacttttgg tggatgagat 480
atgcaggttg atrccagaag gacaacaaaa acatatgtca gatagaaggg aggagcaaat 540
gccaagagct ggagctgagg aagatcactg tgaaattcta tgtagtctag ttggctggat 600
gctagagcaa agaggtgg 618

<210> 72
<211> 806

<212> DNA
<213> Homo sapiens

<400> 72
tctacgatgg ccatttgctc attgtctttc ctctgtgtgt agtgagtgac cctggcagtg 60
tttgcctgct cagagtggcc cctcagaaca acagggctgg ccttggaaaa accccaaaac 120
aggactgtgg tgacaactct ggtcaggtgt gatttgacat gagggccgga ggcggttgct 180
gacggcagga ctggagaggc tgcgtgcccg gcactggcag cgaggctcgt gtgtccccca 240
ggcagatctg ggcactttcc caacccaggt ttatgccgtc tccagggaag cctcggtgcc 300
agagtggtgg gcagatctga ccatccccac agaccagaaa caaggaattt ctgggattac 360
ccagtccccc ttcaacccag ttgatgtaac cacctcattt tttacaaata cagaatctat 420
tctactcagg ctatgggcct cgtcctcact cagttattgc gagtgttgct gtccgcatgc 480
tccgggcccc acgtggctcc tgtgctctag atcatggtga ctccccccgcc ctgtggttgg 540
aatcgatgcc acggattgca ggccaaattt cagatcgtgt ttccaaacac ccttgctgtg 600
ccctttaatg ggattgaaag cacttttacc acatggagaa atatattttt aatttgtgat 660
gcttttctac aaggtccact atttctgagt ttaatgtgtt tccaacactt aaggagactc 720
taatgaaagc tgatgaattt tcttttctgt ccaaacaagt aaaataaaaa taaaagtcta 780
tttagatgtt gaaaaaaaaa aaaaaa 806

<210> 73
<211> 301
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 59
<223> n = A,T,C or G

<400> 73
actctggtaa gcttgttgtt gtccaagtga agctccctca gatgaggcgt gttggccana 60
gagccattgt caacagcaga gatgctgttg aaactcaatc ccaacttagc caaattattc 120
agtcctttca ggctagctgc atcaactctg ctgattttgt tgccatcaag atgtaattcc 180
gtaagggaag gaggaagacc ttgaggaatg ctggygatat tggyatcagc aatgcggatg 240
tasgaagagc ttcttcmttc cctggaaagc cccattttca atyccttgag ctcttcakcg 300
g 301

<210> 74
<211> 401
<212> DNA
<213> Homo sapiens

<400> 74
agtttacatg atccctgtaa cagccatggt ctcaaactca gatgcttcct ccatctgcca 60
agtgtgttct ggatacagag cacatcgtgg cttctggggt cacactcagc ttaggctgtg 120
ggtccacaga gcactcatct ggctgggcta tggtggtggt ggctctactc aagaagcaaa 180
gcagttacca gcacattcaa acagtgtatt gaacatcttt taaatatcaa agtgagaaac 240
aagaaggcaa cataataatg ttatcagaaa gatgttagga agtaaggaca gctgtgtaaa 300
gcttgaggct gaaaagtagc ttgccagctt catttctttg gtttcttggg tagtgggccg 360
ccggaacagc aagatgtgag gttctggttc atggatcata t 401

<210> 75
<211> 612
<212> DNA

<213> Homo sapiens

<400> 75
ttatttttca atttttattt tggttttctt acaaaggttg acattttcca taacaggtgt 60
aagagtgttg aaaaaaaaat tcaaattttt ggggagcgag ggaaggagtt aatgaaactg 120
tattgcacaa tgctctgatc aatccttctt tttctctttt gcccacaatt taagcaagta 180
gatgtgcaga agaaatggaa ggattcagct ttcagttaaa aaagaagaag aagaaatggc 240
aaagagaaag ttttttcaaa tttctttctt ttttaattta gattgagttc atttatttga 300
aacagactgg gccaatgtcc acaaagaatt cctggtcagc accaccgatg tccaaaggtg 360
caatatcaag gaagggcagg cgtgatggct tatttgtttt gtattcaatg attgtctttc 420
cccattcatt tgtcttttta gagcagccat ctacaagaac agtgtaagtg aacctgctgt 480
tgccctcagc aacaagttca acatcattag agccctgtag aatgacagcc tttttcaggt 540
tgccagtctc ctcatccatg tatgcaatgc tgttcttgca gtggtaggtg atgttctgag 600
aggcatagtt gg 612

<210> 76
<211> 844
<212> DNA
<213> Homo sapiens

<400> 76
ggctttcgag cggccgcccg ggcaggtctg atggttctcg taaaaacccc gctagaaact 60
gcagagacct gaaattctgc catcctgaac tcaagagtgg agaatactgg gttgacccta 120
accaaggatg caaattggat gctatcaagg tattctgtaa tatggaaact ggggaaacat 180
gcataagtgc caatcctttg aatgttccac ggaaacactg gtggacagat tctagtgctg 240
agaagaaaca cgtttggttt ggagagtcca tggatggtgg ttttcagttt agctacggca 300
atcctgaact tcctgaagat gtccttgatg tgcagcykgc attccttcga cttctctcca 360
gccgagcttc ccagaacatc acatatcact gcaaaaatag cattgcatac atggatcagg 420
ccagtggaaa tgtaaagaag gccctgaagc tgatggggtc aaatgaaggt gaattcaagg 480
ctgaaggaaa tagcaaattc acctacacag ttctggagga tggttgcacg aaacacactg 540
gggaatggag caaaacagtc tttgaatatc gaacacgcaa tgctgttcct tgacattgca 600
ccaccaatgt ccagaggtgc aatgtcaagg aacggcaggc gagatggctt atttgttttg 660
tattcaatga ttgtcttgcc ccattcattt gtctttttgg agcagccatc gactaggaca 720
gagtaggtga acctgctgtt gccctcagca acaagttcca catcgttgga accctgcaga 780
agcacagcct tgttcaarct gcccgtctcc tcatccagat acctcggccg cgaccacgct 840
aatc 844

<210> 77
<211> 314
<212> DNA
<213> Homo sapiens

<400> 77
ccagtcctcc acttggcctg atgagagtgg ggagtggcaa gggacgtttc tcctgcaata 60
gacacttaga tttctctctt gtgggaagaa accacctgtc catccactga ctcttctaca 120
ttgatgtgga aattgctgct gctaccacca cctcctgaag aggcttccct gatgccaatg 180
ccagccatcc tggcatcctg gccctcgagc aggctgcggt aagtagcgat ctcctgctcc 240
agccgtgtct ttatgtcaag cagcatcttg tactcctggt tctgagcctc catctcgcat 300
cggagctcac tcag 314

<210> 78
<211> 548
<212> DNA
<213> Homo sapiens

<400> 78
accaagagcc aagtgttaca caggatattt taaaaataaa atgtttttgg aatcctcacc 60
tcccatgcta tcttctaaga taactacaaa tattcttcaa agatttaact gagttctgcc 120
aaggacctcc caggactcta tccagaatga ttattgtaaa gctttacaaa tcccaccttg 180
gccctagcga taattaggaa atcacaggca aacctcctct ctcggagacc aatgaccagg 240
ccaatcagtc tgcacattgg ttttgttaga tactttgtgg agaaaaacaa aggctcgtga 300
tagtgcagct ctgtgcctac agagagcctc ccttttggtt ctgaaattgc tgatgtgaca 360
gagacaaagc tgctatgggt ctaaaacctt caataaagta actaatgaca ctcaaggtcc 420
tgggactctg agacagacgg tggtaaaacc cacagctgcg attcacattt ccaatttatt 480
ttgagctctt tctgaagctg ttgcttccta cctgagaatt cccatttaga gagctgcaca 540
gcacagtc 548

<210> 79
<211> 646
<212> DNA
<213> Homo sapiens

<400> 79
accccgtcac tatgtgaata aaggcagcta gaaaatggac tcaattctgc aagccttcat 60
ggcaacagcc catattaaga cttctagaac aagttaaaaa aaatcttcca tttccatcca 120
tgcatgggaa aagggcttta gtatagttta ggatggatgt gtgtataata ataaaatgat 180
aagatatgca tagtggggga ataaagcctc agagtccttc cagtatgggg aatccattgt 240
atcttagaac cgagggattt gtttagattg ttgatctact aatttttttc ttcacttata 300
tttgaatttt caatgatagg acttattgga aattggggat aattctgttg tggtattaaa 360
taatattcat tttttaaaaa ctcatcttgg tattgagtta gtgcattgac ttccaatgaa 420
ttgacataag cccatatttc attttaacca gaaacaaaaa ctagaaaatg ttactcccta 480
aataggcaac aatgtatttt ataagcactg cagagattta gtaaaaaaca tgtatagtta 540
ctttagaaac aacttctgac acttgagggt tacccaatgg tctccttccc attctttata 600
tgaggtaaat gcaaaccagg gagccaccga ataaacagcc ctgagt 646

<210> 80
<211> 276
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 16, 29, 32, 45, 53, 55, 58, 59, 65, 66, 75, 77, 85, 90, 97,
109, 112, 163, 170
<223> n = A,T,C or G

<400> 80
gtctgaatga gcttcnctgc gagatgganc ancataaccc agaantccaa aancntanng 60
aacgnnaaaa cccgntngaa caagnaaacn gcaactnacg gccgcctgnt gnagggcgag 120
gacgcccacc tctcctcctc ccagttctcc tctggatcgc agncatccan agatgtgacc 180
tcttccagcc gccaaatccg caccaaggtc atggatgtgc acgatggcaa ggtgggtgtc 240
cacccacgaa caggtccttc gcaccaagaa ctgagg 276

<210> 81
<211> 647
<212> DNA
<213> Homo sapiens

<400> 81
gtcctgcctt tcatcttttc tttaaaaaaa ataaatgttt acaaaacatt tccctcagat 60
tttaaaattc atggaagtaa taaacagtaa taaaatatgg atactatgaa aactgacaca 120
cagaaaaaca taaccataaa atattgttcc aggatacaga tattaattaa gagtgacttc 180
gttagcaaca cgtagacatt catacatatc cggtggaaga ctggtttctg agatgcgatt 240
gccatccaaa cgcaaatgct tgatcttgga gtaggrtaat ggccccagga tcttgcagaa 300
gctctttatg tcaaacttct caagttgatt gacctccagg taatagtttt caaggttttc 360
attgacagtt ggtatgtttt taagcttgtt ataggacaga tccagctcaa ccagggatga 420
cacattgaaa gaatttccag gtattccact atcagccagt tcgttgtgag ataaacgcag 480
atactgcaat gcattaaaac gcttgaaata ctcatcaggg atgttgctga tcttattgtt 540
gtctaagtag agagttagaa gagagacagg gagaccagaa ggcagtctgg ctatctgatt 600
gaagctcaag tcaaggtatt cgagtgattt aagaccttta aaagcag 647

<210> 82
<211> 878
<212> DNA
<213> Homo sapiens

<400> 82
ccttctttcc ccactcaatt cttcctgccc tgttattaat taagatatct tcagcttgta 60
gtcagacaca atcagaatya cagaaaaatc ctgcctaagg caaagaaata taagacaaga 120
ctatgatatc aatgaatgtg ggttaagtaa tagatttcca gctaaattgg tctaaaaaag 180
aatattaagt gtggacagac ctatttcaaa ggagcttaat tgatctcact tgttttagtt 240
ctgatccagg gagatcaccc ctctaattat ttctgaactt ggttaataaa agtttataag 300
atttttatga agcagccact gtatgatatt ttaagcaaat atgttattta aaatattgat 360
ccttcccttg gaccaccttc atgttagttg ggtattataa ataagagata caaccatgaa 420
tatattatgt ttatacaaaa tcaatctgaa cacaattcat aaagatttct cttttatacc 480
ttcctcactg gccccctcca cctgcccata gtcaccaaat tctgttttaa atcaatgacc 540
taagatcaac aatgaagtat tttataaatg tatttatgct gctagactgt gggtcaaatg 600
tttccatttt caaattattt agaattctta tgagtttaaa atttgtaaat ttctaaatcc 660
aatcatgtaa aatgaaactg ttgctccatt ggagtagtct cccacctaaa tatcaagatg 720
gctatatgct aaaaagagaa aatatggtca agtctaaaat ggctaattgt cctatgatgc 780
tattatcata gactaatgac atttatcttc aaaacaccaa attgtcttta gaaaaattaa 840
tgtgattaca ggtagagaac ctcggccgcg accacgct 878

<210> 83
<211> 645
<212> DNA
<213> Homo sapiens

<400> 83
acaaacattt tacaaaaaag aacattacca atatcagtgg cagtaagggc aagctgaaga 60
ataaatagac tgagtttccg ggcaatgtct gtcctcaaag acatccaaac tgcgttcagg 120
cagctgaaac aggcttcttt cccagtgaca agcatatgtg gtcagtaata caaacgatgg 180
taaatgaggc tactacatag gcccagttaa caaactcctc ttctcctcgg gtaggccatg 240
atacaagtgg aactcatcaa ataatttaaa cccaaggcga taacaacgct atttcccatc 300
taaactcatt taagccttca caatgtcgca atggattcag ttacttgcaa acgatcccgg 360
gttgtcatac agatacttgt ttttacacat aacgctgtgc catcccttcc ttcactgccc 420
cagtcaggtt tcctgttgtt ggaccgaaag gggatacatt ttagaaatgc ttccctcaag 480
acagaagtga gaaagaaagg agaccctgag gccaggatct attaaacctg gtgtgtgcgc 540
aaaagggagg gggaaggcag gaatttgaaa ggataaacgt ctcctttgcg ccgaggaatc 600
aggaagcgtg actcacttgg gtctgggacg ataccgaaat ccggt 645

<210> 84

<211> 301
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 270, 284
<223> n = A,T,C or G

<400> 84
tctgatgtca atcacaactt gaaggatgcc aatgatgtac caatccaatg tgaaatctct 60
cctcttatct cctatgctgg agaaggatta gaaggttatg tggcagataa agaattccat 120
gcacctctaa tcatcgatga gaatggagtt catgggctgg tgaaaaatgg tatttgaacc 180
agataccaag ttttgtttgc cacgatagga atagctttta tttttgatag accaactgtg 240
aacctacaag acgtcttgga caactgaagn ttaaatatcc acangggttt attttgcttg 300
g 301

<210> 85
<211> 296
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 16, 20, 240
<223> n = A,T,C or G

<400> 85
agcgtgggtc gcggcncgan gtagagaacc gactgaaacg tttgagatga agaaagttct 60
cctcctgatc acagccatct tggcagtggc tgttggtttc ccagtctctc aagaccagga 120
acgagaaaaa agaagtatca gtgacagcga tgaattagct tcagggtttt ttgtgttccc 180
ttacccatat ccatttcgcc cacttccacc aattccattt ccaagatttc catggtttan 240
acgtaatttt cctattccaa tacctgaatc tgcccctaca actccccttc ctagcg 296

<210> 86
<211> 806
<212> DNA
<213> Homo sapiens

<400> 86
tctacgatgg ccatttgctc attgtctttc ctctgtgtgt agtgagtgac cctggcagtg 60
tttgcctgct cagagtggcc cctcagaaca acagggctgg ccttggaaaa accccaaaac 120
aggactgtgg tgacaactct ggtcaggtgt gatttgacat gagggccgga ggcggttgct 180
gacggcagga ctggagaggc tgcgtgcccg gcactggcag cgaggctcgt gtgtccccca 240
ggcagatctg ggcactttcc caacccaggt ttatgccgtc tccagggaag cctcggtgcc 300
agagtggtgg gcagatctga ccatccccac agaccagaaa caaggaattt ctgggattac 360
ccagtccccc ttcaacccag ttgatgtaac cacctcattt tttacaaata cagaatctat 420
tctactcagg ctatgggcct cgtcctcact cagttattgc gagtgttgct gtccgcatgc 480
tccgggcccc acgtggctcc tgtgctctag atcatggtga ctcccccgcc ctgtggttgg 540
aatcgatgcc acggattgca ggccaaattt cagatcgtgt ttccaaacac ccttgctgtg 600
ccctttaatg ggattgaaag cacttttacc acatggagaa atatattttt aatttgtgat 660
gcttttctac aaggtccact atttctgagt ttaatgtgtt tccaacactt aaggagactc 720
taatgaaagc tgatgaattt tcttttctgt ccaaacaagt aaaataaaaa taaaagtcta 780
tttagatgtt gaaaaaaaaa aaaaaa 806

<210> 87
<211> 620
<212> DNA
<213> Homo sapiens

<400> 87
ttttgcatc agatctgaaa tgtctgagag taatagtttc tgttgaattt ttttttgttc 60
atttttctgc acagtccatt ctgtttttat tactatctag gcttgaaata tatagtttga 120
aattatgaca tccttcctct ttgttatttt cctcatgatt gctttggcta ttcaaagttt 180
attttagttt catgtaaatt tttgaattgt attttccatt attgtgaaaa tagtaccact 240
gcaatttta taggaagttt attgaatcta tagattactt tggataatat ggcacttcaa 300
taatattcat gttttcaatt catagacaaa atattttaaa atttatttgt atcttttcta 360
atttttcctt tttttattgt aaagatttac ctccttggtt aatattttcc tcagaaattt 420
attatttaag gtatagtcaa taaaattttc ttcctctatt ttgtcagata gtttaagtgt 480
atgaaaccat agatatactt gtatgttaat tttatatttt gctaatttac tgagtgtatt 540
tattagttta gagaggtttt aatgtactgt ttatggtttt ttaaatataa gattacttat 600
tttttaaaaa aaaaaaaaaa 620

<210> 88
<211> 308
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 9, 189, 194, 206, 238, 296
<223> n = A,T,C or G

<400> 88
tagctgtgnt cagcaggccg aggtttttt ttttttgag atggagtctc gccctgtcac 60
ccaggctgga gtgcagtggc ctgatctcag ctcactgcaa gctccacctc ctggattcac 120
gctattctcc tgcctcagcc tcccaagtag ctgggactac aggcgcccgc caccacgccc 180
agctaattnt ttgnattttt agtacnagat gcggtttcat cgtgttagcc agcatggnct 240
cgatctcctg acctcgtgaa ctgcccgcct cggcctccca aagacctgcc cgggcnggcc 300
gctcgaaa 308

<210> 89
<211> 492
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 448
<223> n = A,T,C or G

<400> 89
agcggccgcc cgggcaggtc tgttaagtaa catacatatc accttaataa aaatcaagat 60
gaaatgtttt agaaactatt ttatcaaaag tggctctgat acaaagactt gtacatgatt 120
gttcacagca gcactattaa tgccaaaaag tagacaaaac ctaaatgtcc attaactgat 180
aagcaaaatg tggtatatcc atacaatgga atattatgta gcccacaaca tggcatggag 240
tactacaaca tggatgagcc tcaaaaacgt tatgctaaat gaaaaaagtc agatatagga 300
aaccacatgt catatgatcc catttatatg aaatagccag aaaaggcaag tcatagaaac 360

aagatagatc ggaaaatggg ttggaggact acaaatggca ccagggatct ttgaagttga 420
tggaaatggt ctaaaatcag actgtggntg tggttgaaca agtctgtaaa tttaccaaaa 480
tgcgttaata ca 492

<210> 90
<211> 390
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 106, 184, 206, 209, 234, 314
<223> n = A,T,C or G

<400> 90
tcgagcggcc gcccgggcag gtacaagctt ttttttttt ttttttttt ttttctaaca 60
gttctctgtt ttattgcaat acagcaaagt ctggttaata ttaagngata tcaacataaa 120
gtattggtga ggagtctttt gtgacatttt ttaccatccc accttaaata tttctgtgca 180
aaanaatcca catcattgtt tggtancana ggatctctta aaaagttccc taanacactg 240
agggcataaa accaaacaaa ataaaataag gagtgatagg ctaaagcagt atcttcccct 300
ccatccacat ttgncaagca ttatattcta accaaaaaat gatcacacca ggccatgcaa 360
aactgtccaa tattaccgag aaaaaaccct 390

<210> 91
<211> 192
<212> DNA
<213> Homo sapiens

<400> 91
agcgtggtcg cggccgaggt ctgtcaatta atgctagtcc tcaggattta aaaaataatc 60
ttaactcaaa gtccaatgca aaaacattaa gttggtaatt actcttgatc ttgaattact 120
tccgttacga aagtccttca cattttcaa actaagctac tatatttaag gcctgcccgg 180
gcggccgctc ga 192

<210> 92
<211> 570
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 519, 559
<223> n = A,T,C or G

<400> 92
agcgtggtcg cggccgaggt ctgacaacta acaaagaagc aaaaactggc atcttggaca 60
tcctagtatt acacttgcaa gcaattagaa cacaaggagg gccaaggaaa aagtttagct 120
ttgaatcact tccaaatcta ctgattttga ggttccgcag tagttctaac aaaacttttc 180
agacaatgtt aactttcgat taagaaagaa aaaaacccca aacatcttca ggaattccat 240
gccaggttca gtctcttcca gtgagcccgc ttgctaaaag tccacgtgca ccattaatta 300
gctgggctgg cagcaccatg taaaaagaag cctattcacc accaaccaca cagactagac 360
atgtaaagta ggatcaagta atggatgaca accatggtcg tggaatatgg tcaatgagag 420
tcagaaaagt acaggcacca gtacaagcag cagataacag aattgacggg ccaaaggata 480
aaaataggct tatttaaata ggatgctaca gaacacatnc acttctaatt ggaagctgct 540

ttacactggg tggcattgna ccatatgcat 570

<210> 93
<211> 446
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 328, 389
<223> n = A,T,C or G

<400> 93
tcgagcggcc gcccgggcag gtccaggttt ttatttagtt gtgtaatctt ggacaagtta 60
cctaactttt ttgagtctga atatatttaa tctgcaaaat gagaatcatg ataatacgtc 120
ataggcttaa ttaggaggat taaatgaaat aatttatagg tggtgccatg gttacataca 180
agtattagta gttaattctt ttcctttgtt tacttttata gtataggttg gatgaaggtt 240
ccagtatagg caaaaatact acttgggggt aaagtagagt gtgatacttt atttgaaatg 300
ttccctgaat ctgatcttta ctttttgnta ctgctgcact acccaaatcc aaattttcat 360
cccaacattc ttggatttgt gggacagcng tagcagcttt tccaatataa tctatactac 420
atcttttctt actttggtgc tttttg 446

<210> 94
<211> 409
<212> DNA
<213> Homo sapiens

<400> 94
cgagcggccg cccgggcagg tccatcagct cttctgctta gaatacgagg cagacagtgg 60
agaggtcaca tcagttatcg tctatcaggg tgatgaccca agaaaggtga gtgagaaggt 120
gtcggcacac acgcctctgg atccacccat gcgagaagcc ctcaagttgc gtatccagga 180
ggagattgca aagcgccaga gccaacactg accatgttga aggcgttctc tccaggctgg 240
attcactgca ctcggaagaa ttctgcccag ggaatttagt gtggggtac caggaccagt 300
ttgtcttgat cttgagaccc ccagagctgc tgcatccata gggtgttgca ggactacacc 360
tggcctgcct tgcagtcatt ctttcttata tgttgaccca tttgcccaa 409

<210> 95
<211> 490
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 486
<223> n = A,T,C or G

<400> 95
tcgagcggcc gcccgggcag gtcctacttg tttgcagctt ccacacactg cacctaccta 60
ctacctctct tccatgctta actgggttta gaaaggtgag ctatgcgtag aagaactact 120
tgggatattc aagtgctgta tttgaacgat aagcctatag ataacagtct gaagctgcaa 180
gggagacttt gttagtacac tactataaac aggtaaacta cctgtttgta cttgatatag 240
tgcatatgaa atgactgatt taatacaaaa ctacagaaca tgcaaaattt tttctgagat 300
gttaagtatt acttcagtgg agaacaaaac ttacttaacc tttcgctaat gcatgtagta 360
ccagaaagca aacatggttt tagcttcctt tactcaaaat atgaacatta agtggttgtg 420

aattttgtct gccaagtggt tcagaaaata cattataaat aacctaagtt aaaaaaaaga 480
aactgngaac 490

<210> 96
<211> 223
<212> DNA
<213> Homo sapiens

<400> 96
agcgtggtcg cggccgaggt ctggaagccc accctaggac ttgaatggca ccttgtcctt 60
tctctgccag taatgcaatc caacacaata tgctacaggg aaaacagaat ttccacggtg 120
ccgccctctg gtacaaggga aacagcacgc aaagcaaaag gccacagagg gctccctgag 180
aatccagtac aactaagcga ggacctgccc gggcggccgc tcg 223

<210> 97
<211> 527
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 404, 436, 451, 476
<223> n = A,T,C or G

<400> 97
tcgagcggcc gcccgggcag gtctgtgcag gagacactga agtgggtagt gtccataatc 60
tttttagcct gttgctgaaa ttccagttgt actccttcaa accaaaatgc ttacaggatc 120
atgggaaagc ctcggttgca gaaatcaaga caggcaagtg ggaagataac tcggctttga 180
ggttaaacag atctgggttc aaagcatagt ttcactctct gtcttgtgaa gtgtcctggg 240
tgaagtcatt tcctctcttg aatttcagag aggatgaaaa tataaaaagt ataataacta 300
tcttcataat ctttgtgagg attaaagaag acgaagtgtg tgaaaagcta agcacagagc 360
aggcattcta caataagtag ttattatttt tggaaccatc ccgnccctag ccccagccca 420
attaccttct cttagnctct tcatatcgaa ngccgtaatc ttgaccttct cttgcnactg 480
gattggtgct ggttgatgcc caaacttccc gagatgctgt ctgggaa 527

<210> 98
<211> 514
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 455
<223> n = A,T,C or G

<400> 98
tcgagcggcc gcccgggcag gtctggctcc catggccctt ggggtggcct gactctgtca 60
ctattcctaa aaccttctag gacatctgct ccaggaagaa ctttcaacac caaaattcat 120
ctcaatttta cagatgggaa aagtgattct gagaccagac cagggtcagg ccaaggtcat 180
ccagcatcag tggctgggct gagactgggc ccagggaacc ctgtctgctc ctctttttcc 240
cagagctgtg agttctctag ccaaggctgc actcttgagg gagagccagg aagcatagct 300
gaggccatga caacctcact cttcacctga aaatttaacc cgtggcagag gatccaggca 360
catataggct tcggagccaa acaggacctc ggccgcgacc acgctaagcc gaattccagc 420
acactggcgg ccgttactag tggatcccga gcttnggtac caagcttggc gtaatcatgg 480

gcatagctgg ttcctggggt gaaaatggta tccg 514

<210> 99
<211> 530
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 430, 522
<223> n = A,T,C or G

<400> 99
tcgagcggcc gcccgggcag gtctgaagaa acaggtataa atttggcagc cagtaatttt 60
gacagggaag ttacagcttg catgacttta aatatgtaaa tttgaaaata ctgaatttcg 120
agtaatcatt gtgctttgtg ttgatctgaa aaatataaca ctggctgtcg aagaagcatg 180
ttcaaaaata tttaattcac ttcaaaatgt catacaaatt atggtggttt ctatgcaccc 240
ctaaagcttc aagtcattta gctcaggtac atactaaagt aatatattaa ttcttccagt 300
acagtggtgt ttcataccat tgacatttgc ataccctaga ataatttaag aaagacatgt 360
gtaatattca caatgttcag aaaagcaagc aaaaggtcaa ggaacctgct ttggttcttc 420
tggagatggn ctcatatcag cttcataaac attcattcta caaaatagta agctaaccat 480
ttgaacccca atttccagat taagcatatt ttctcataaa tnatgaagcc 530

<210> 100
<211> 529
<212> DNA
<213> Homo sapiens

<400> 100
agcgtggtcg cggccgaggt ccaggcacgg tggcttatgt gtgtaatccc agcacttggg 60
gaggctgagg gaggtggatc acttgagtcc aggagtttga gaccagtctg ggcaacatgg 120
cgaaacttca tcactaccaa agaagaaaaa aattagccag gtgtggtggt gtatgcctgt 180
agtcccagat actctggtgg ctgaggtgag aggatagctt gagcccagga aattgaggct 240
gcagtgaact atgattgcac tactgtgctc cagcttgggc aacagagtga gatcttgtct 300
ccaaaagtcc ttgaaggatt ttaggaagtt gttaaaagtc ttgaaacgat gtttgggggc 360
atgttagggt tcttgaatgt ttaattcctc taataactgc ttattcaaga gaagcatttc 420
tgactgggtg cggggcagtg gcttcatgcc ccataatccc agtactttgg gaggctgaag 480
caggaacatt gcttgagccc aggacttcaa gaacagcctg ggtaacata 529

<210> 101
<211> 277
<212> DNA
<213> Homo sapiens

<400> 101
tcgagcggcc gcccgggcag gtcgcaggaa gaggatggaa actgaggagt ccaggaagaa 60
gagggaacga gatcttgagc tggaaatggg agatgattat attttggatc ttcagaagta 120
ctgggattta atgaatttgt ctgaaaaaca tgataagata ccagaaatct gggaaggcca 180
taatatagct gattatattg atccagccat catgaagaaa ttggaagaat tagaaaaaga 240
agaagagctg agaacagacc tcggccgcga ccacgct 277

<210> 102
<211> 490
<212> DNA

<213> Homo sapiens

<400> 102
gcgtggtcgc ggccgaggtc tgacggcttt gctgtcccag agccgcctaa acgcaagaaa 60
agtcgatggg acagttagag gggatgtgct aaagcgtgaa atcagttgtc cttaattttt 120
agaaagattt tggtaactag gtgtctcagg gctgggttgg ggtccaaagt gtaaggaccc 180
cctgccctta gtggagagct ggagcttgga gacattaccc cttcatcaga aggaattttc 240
ggatgttttc ttgggaagct gttttggtcc ttggaagcag tgagagctgg gaagcttctt 300
ttggctctag gtgagttgtc atgtgggtaa gttgaggtta tcttgggata aagggtcttc 360
tagggcacaa aactcactct aggtttatat tgtatgtagc ttatattttt tactaaggtg 420
tcaccttata agcatctata aattgacttc tttttcttag ttgtatgacc tgccccgggc 480
ggccgctcga 490

<210> 103
<211> 490
<212> DNA
<213> Homo sapiens

<400> 103
gagcggccgc ccgggcaggt ccaaaccagc ttgctcataa gtcattaacc aaatccatta 60
taggtaattt gttcagttca atgtttacaa ttcttatgga aaaaattagc aacacacaca 120
tttaaaacgt gtgcatttac ctttgcgtga gtgcttaaaa tacatatttc tatttcaaga 180
tgacatttaa aaattattct aatatatcag cagcaaaaat ataatttgca attacaaaaa 240
actaaactag aatccttaag ttattctcat gtttacagtt gtgattcttt aataaatact 300
attatgcagc tctattgttt aagctttctg gatttggttt aaacacatgc atatatattg 360
tcaattgtgg gaagctttac aagttatatt ccatgcactt tttggacaga gttctaacag 420
agccagccag tccacaaaac aggcaagaca aaagttgaat taactggggc aaaataggac 480
tcttatgcaa 490

<210> 104
<211> 489
<212> DNA
<213> Homo sapiens

<400> 104
cgtggtcgcg gccgaggtcc aggctggtct cgaactcctg accttgtgat ctgcccgcct 60
cggcctccca aagtgttggg attacaggca tgagccactg cgcccgaccg agttgaacat 120
ttaatgtcag actaggccag agtttctcaa tctttttatt ctcacttccc aaaggagccg 180
ttggagattt tcccctcaat ctctctcctt catgaaattt cataccacaa atatagtatg 240
ttttatttat gtactgtgac cctttgaagg atcacaaacc aatataatag tttttctttt 300
taacccgtca aggaccaagt ttttgccccc gttggaaatg cataaactgg actgatgaat 360
tggtatagat ggcttttatc atgaggatca gaaaaacttg aaattccttg gctacgacac 420
tccatattta tcaccgtata gggaggacct tggtatgggg aagtagaaac acttctacac 480
tttacagca 489

<210> 105
<211> 479
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 142, 453
<223> n = A,T,C or G

<400> 105
gcgtggtcgc ggccgaggtc tgactggctt cagccccaga agttgagctg gcctttagac 60
aaaataattg cacctccctc tgctgcttat tcccttccgt ttttcatttg agtgtgaaca 120
gttagataaa atctgtggct gnctcttcca ccttgctcta gtttccattg ctgtgagcag 180
gccctcctat gccccgcatt tagctacaat gctgtggact cacttgattc tttttctccg 240
agctttgtct agaaatatgt gaaggtgagg ttaagtgctt ctctgtgtag atccacttag 300
ccctgtctgc tgtctcgatg ggcgttgctt cgtctctcct ctcttccatc ctttccattt 360
gcttctcacc accttctggc ttcttttctt aatgcaataa aggcagtttc taacaaagaa 420
agaatgtggg ctttggagtt agacagacct ggntttaaat tctgcttctg gctctccaa 479

<210> 106
<211> 511
<212> DNA
<213> Homo sapiens

<400> 106
tcgcggccga ggtccaaaac gtggattcca atgacctgcc ttgagcccgc ggttgccagg 60
agttggacct gcagtagtat gggaagctca cggcctaaat accgactgcc ctctgacccc 120
accgtccagc gattctagaa catttctagt aggaaagaca tagcaaggga ttttcatgat 180
tgggaaatac tgggagacaa gctgaagatt tgttaagggc tatgcttctg tcatctttta 240
ggtatttaag gctactcctt tagctagcta ctttgagctg tttaaagtga ctatctccct 300
acacagagtt acacaatgag catctctgaa agagaatatt accctggatt tccaaagatg 360
tactctaaca ggatgaccag gcaaaaggtg acccggggga ggagtctgtt ataacactcg 420
gacccacatg ttctcaaggc acttcagaac tttgggaaat cattttgtac cggatcctca 480
gaaagcattt atggaaatac acatccttta g 511

<210> 107
<211> 451
<212> DNA
<213> Homo sapiens

<400> 107
ggccgcccgg gcaggtccag aatatcaaat caaaaggtca caaatgttca cttcctcctc 60
caccctctta catattggat cttcaattgc aatagggagt gtaagatggg cattttagag 120
acgtagttgc atcagcagaa gcaaacccat cttatacaaa tgggttttgg ggataggaaa 180
aggctgctaa aaattcacaa gtcaccattc cccagaagca atgaatagcc gtagaagacc 240
aaggaagatc aacaagtttc caaagtgcta aagccagaga tttggccctt ccaaaatacc 300
accaggacgc ctggacccgt gggctctccg catgtcacca ctgactgcca ggatgctgct 360
gcacctccct tccttgagac acaacagaga gacagtgaag tcacccaaga ctgggatcat 420
cagaggctcc tcatgcttgc tacagagaag c 451

<210> 108
<211> 461
<212> DNA
<213> Homo sapiens

<400> 108
ccgcccgggc aggtcctgaa aacattcaga ctaatcaaaa tggtactact gtaacttctt 60
ataatacata atataaaagt ttttgaaaga tatagacaca attaacccct aaacaacaca 120
ctatctgatt ctcaaaagca atggctattt aacaagatgt aaaaggacaa taacatatca 180
aagaactttc acacacctaa agatagcatt tagcagcaag ttagtcagac aaaacaaaca 240
caaatatttt cacatttcct atgtttgttt ttaactttac ttcataaagc cactgataat 300
tgaggtttct ttcaagtata agatttctaa aattaaaaac tgtttttgac atatttttat 360

aaagaaataa aaagcaaaac gcaatccaac tatttatatg agtccctctt ctccaacagc 420
tttagatggt tttctgagta ctttttttaca cagaatattt t 461

<210> 109
<211> 441
<212> DNA
<213> Homo sapiens

<400> 109
ggccgcccgg gcaggtctga ttataagaga aagaaatcca gtgacacgag ggcaggcagg 60
ccccgctctg ctctgatcga gaaaagcttc ctgatgtcag ggagatggaa ctgccaccat 120
cagaaccatg gcactttggg tgaaggtgtg tcagcgacca agggggcagg aaatgggcag 180
tgactaaggg ggcaggaaac aggcaggcac atggcaaggt tctcccagcc catcagccca 240
gtgatggcct cgattttgaa gctgcactac tgtctgaaaa gcacaattac tggtgactct 300
taacaaactt cagcatactg gggaaggaga ctgtcaagta actgaattgg aaagatgaaa 360
aagaaccatc tctaaaagtt gatgcttgtc agaagaataa cctcctttgt gcaagtcttg 420
caacatcttc attcaaccac a 441

<210> 110
<211> 451
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 260, 361
<223> n = A,T,C or G

<400> 110
ggtcgcggcc gaggtctggg gaaggggtga gaatccctgg gccttgccca gtcctgagct 60
ctgggtgtct gcagggaagc acagtggtga gttagtgtta aagaaagcat ccagagaggt 120
aagaggggct tgggtagcac cctttgcctc tgtcacttcc gcaaaaactt cttgttgagg 180
aggaagatga gaaggttgac attgactttg gccttgttga agagtttcat gacagccaca 240
ccctcatact ggagctgcan gagatcctga tagtgaagct tgaaatcgct ccatgtccac 300
acccaggaac ttggcattta cttcaaactt tcctgcctca tctcccggcg tgatgtcaaa 360
natgacgttt cttgaagtga gaggcgggaa agatcttcaa tttccaccaa agacaccctt 420
tttccaggaa gcttgagcaa caagtgtaat g 451

<210> 111
<211> 407
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 26, 33, 36, 79, 105, 111, 133, 149, 186, 206, 220, 239, 245,
259, 336, 375, 383, 393
<223> n = A,T,C or G

<400> 111
ggccgacgtt cgacctgact tctttngagc agntgncact acccgtcttg aggaatgccg 60
actgcagaca gtggcccang gcaaagagtg tgcgtcatcg atganattgg naagatggag 120
ctcttcagtc agnttttcat tcaagctgnt cgtcagacgc tgtctacccc agggactata 180
atcctnggca caatcccagt tcctanagga aagccactgn ctcttgtaga agaaatcana 240

cacanaaagg atgtgaacng tgtttaatgt caccaaggga aaacatgaaa ccaccttctg 300
ccagatatcg ggacgttgcg tgcagatcaa gcacgnaagt gaagacgcgt gcattccttg 360
ccttccgtga acgantgccc agntcaagaa gancctgatg gaaccct 407

<210> 112
<211> 401
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 363
<223> n = A,T,C or G

<400> 112
tcgcggccga ggtcggccga ggtctgacat ctgttgtctg tgataaccac ttctgtattg 60
cgtcttaacc acttctgtat tgtgtggttt taactgccta aggcggcaat gggcagtggg 120
ccccctttccc ttaggatggg tatcaattca acaatattta taaggcattt actgtgtgct 180
aagcatttgg aagacccagg ctacaaaata agacatagtt cctgccctcc aggccagcag 240
agggaggcac aaatacccag gaatctctga tgggtgtgaa gtgcggtcgt gggccacaga 300
aaatgaccgt catggagacc ctgctaaagg tcggaccctg agcccaaagg ggtattcaga 360
agnggagatg attttggccc cactcataga tgggtggcaa a 401

<210> 113
<211> 451
<212> DNA
<213> Homo sapiens

<400> 113
gtcgcggccg aggtccatat taaaaagtcc atcataaaca aagactcctc ctcatggtat 60
gaatatgctc catatgccca taatggtgca taacggactt agaaattcca atgagtctta 120
gggttgaaat ttccaatgac ctgagcaagg cagctcccta tagcttctgg ataacatttt 180
acacccagag ttcaggctta aacagaccta tcaacacaat tattttcgga ttgtctgtct 240
agaaaacggc aatgctcaaa ggaatataaa taagggtggg gggacatatg cttccagcct 300
ggcctttctc catgtggtaa aaaacaatgg aatggctgtg ttaatttttt tttaatcttt 360
tctgaccttt actatgtttg gtaatggaaa taagtcaggg aaaacaaaat gaacaggtct 420
catcacttaa ttaatactgg gttttcttct t 451

<210> 114
<211> 441
<212> DNA
<213> Homo sapiens

<400> 114
ggccgcccgg gcaggtccat cctgtcagag atgggagaag tcacagacgg aatgatggat 60
acaaagatgg ttcactttct tacacactat gctgacaaga ttgaatctgt tcatttttca 120
gaccagttct ctggtccaaa aattatgcaa gaggaaggtc agcctttaaa gctacctgac 180
actaagagga cactgttgtt tacatttaat gtgcctggct caggtaacac ttacccaaag 240
gatatggagg cactgctacc cctgatgaac atggtgattt attctattga taaagccaaa 300
aagttccgac tcaacagaga aggcaaacaa aaagcagata agaaccgtgc ccgagtagaa 360
gagaacttct tgaaacttga cacatgtgca aagacaggaa gcagcacagt ctcggcggga 420
ggaagaaaaa aagaacagag a 441

<210> 115

<211> 431
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 317
<223> n = A,T,C or G

<400> 115
gccgcccggg caggtccatt ggcggtgaca aaaggaaaag aagcaaagag actcagtcca 60
taatgctgat tagttagaag aaagggctag gattgagaaa gtaccaggaa cttttaatta 120
tttaaaagag aatgctgact gttaatgttt taaatcttac tgttcaaatg tactaatatg 180
aatttttacc ctttgtgcat gaatattcta aacaactaga agacctccac aatttagcag 240
ttatgaaagt taaacttttt attataaaaa ttctaaacct tactgctcct ttaccaggaa 300
catgacacac tatttancat cagttgcata cctcgccaat agtataattc aactgtcttg 360
cccgaacaat catctccatc tggaagacgt aagcctttag aaacacattt ttctattaat 420
ttctctagaa c 431

<210> 116
<211> 421
<212> DNA
<213> Homo sapiens

<400> 116
gtcgcggccg aggtccagaa atgaagaaga agtttgcaga tgtatttgca aagaagacga 60
aggcagagtg gtgtcaaatc tttgacggca cagatgcctg tgtgactccg gttctgactt 120
ttgaggaggt tgttcatcat gatcacaaca aggaaccggg gctcgtttat caccagtgag 180
gagcaggacg tgagcccccg ccctgcacct ctgctgttaa acaccccagc catcccttct 240
ttcaaaaggg atcctttcat aggagaacac actgaggaga tacttgaaga atttggattc 300
agcccgcgaa gagatttatc aagcttaact cagataaaat cattgaaagt aataaggtaa 360
aagctaagtc tctaacttcc aggcccacgg ctcaagtgaa tttcgaatac tgcatttaca 420
g 421

<210> 117
<211> 489
<212> DNA
<213> Homo sapiens

<400> 117
agcgtggtcg cggccgaggt aaggctgcga ggttgtggtg tctgggaaac tccgaggaca 60
gagggctaaa tccatgaagt ttgtggatgg cctgatgatc cacagcggag accctgttaa 120
ctactacgtt gacactgctg tgcgccacgt gttgctcaga cagggtgtgc tgggcatcaa 180
ggtgaagatc atgctgccct gggacccaac tggtaagatt ggccctaaga agcccctgcc 240
tgaccacgtg agcattgtgg aacccaaaga tgagatactg cccaccaccc ccatctcaga 300
acagaagggt gggaagccag agccgcctgc catgccccag ccagtcccca cagcataaca 360
gggtctcctt ggcagacctg cccgggcggc cgctcgaaag cccgaattcc agcacactgg 420
cggccgttac tagtggatcc cagctcggta ccaagcttgg cgtaatcatg gtcatagctg 480
gtttcctgt 489

<210> 118
<211> 489
<212> DNA
<213> Homo sapiens

<400> 118
tcgagcggcc gcccgggcag gtattgaata cagcaaaatt ctatatacaa agtgacctgg 60
acctgctgct tcaaaacatg atcctttctt actaatatct tgatagtcgg tccatagagc 120
attagaaagc aattgactct taaataaaca gaaaagtgcc taatgcacat taaatgaatg 180
gcctaactac tggaacttta gtagttctat aaggtgatta acataggtag gatccagttc 240
ctatgacagg ctgctgaaga acagatatga gcatcaagag gccattttgt gcactgccac 300
cgtgatgcca tcgtgtttct ggatcataat gttcccatta tctgattcta gacacaccac 360
aggaatatca gtggggtcag aggttagctt agctgcttgc tgggctagaa cagatatcac 420
tccagcatgc tcatctgaca gggtcccgcg gcaacccaga ttaagtcctt gtgaatctgt 480
gcacaggga 489

<210> 119
<211> 181
<212> DNA
<213> Homo sapiens

<400> 119
taggttccag agacttttgg cccaggagga atatttactt ttagctctgg acatcattac 60
aaaaaggaat atttcccaaa cctcttcaga ccgagaatac atgggtaaaa ttattaaata 120
gttgtataat aaaaataatt ttttccttaa aaaaaaaaaa aacctcggcc gcgaccacgc 180
t 181

<210> 120
<211> 489
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 422, 487
<223> n = A,T,C or G

<400> 120
gcgtggtcgc ggccgaggtc catttaaaac aaagaaaaat actaaagcca ctagtaaaca 60
tctgatgtgc aaaatacaac atcctctagt tggctttatg ccattattac ataagctcca 120
aatagctcat cttaaattaa aaagaaaaag tggctgtccc atctctgctg cataaatcag 180
attttttttt aaaggtttag agtactttaa ggaagggaag ttcaaaactg ccagtgaaat 240
tcacagagaa tacaaattta gcaatttaat ttcccaaagc tctttgaaga agcaagagag 300
tctctcttct taatgcagtg ttctcccaag aggaactgta attttgcttg gtacttatgc 360
tgggagatat gcaaaatgtg tttttcaatg tttgctagaa tataatggtt cctcttcagt 420
gnctggttca tcctggaact catgggttaa gaaggacttc ttggagccga actgcccggg 480
cgggccntt 489

<210> 121
<211> 531
<212> DNA
<213> Homo sapiens

<400> 121
cgagcggccg cccgggcagg tggccagcgc tggtcccgca gacgccgaga tggaggaaat 60
atttgatgat gcgtcacctg gaaagcaaaa ggaaatccaa gaaccagatc ctacctatga 120
agaaaaaatg caaactgacc gggcaaatag attcgagtat ttattaaagc agacagaact 180
ttttgcacat ttcattcaac ctgctgctca gaagactcca acttcacctt tgaagatgaa 240

accagggcgc ccacgaataa aaaaagatga gaagcagaac ttactatccg ttggcgatta 300
ccgacaccgt agaacagagc aagaggagga tgaagagcta ttaacagaaa gctccaaagc 360
aaccaatgtt tgcactcgat ttgaagactc tccatcgtat gtaaaatggg gtaaactgag 420
agattatcag gtcccgagga ttaaactggc tcatttcttt gtatgagaat ggcatcaatg 480
gtatccttgc agatgaaatg ggcctaggaa agactcttca acaatttctc t 531

<210> 122
<211> 174
<212> DNA
<213> Homo sapiens

<400> 122
tcgagcggcc gcccgggcag gtctgccaac agcagaggcg gggcctccgg catcttcaaa 60
gcacctctga gcaggctcca gccctctggc tgcgggaggg gtctggggtc tcctctgagc 120
tcggcagcaa agcagatgtt atttctctcc cgcgacctcg gccgcgacca cgct 174

<210> 123
<211> 531
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 152, 373, 482, 494, 496, 502
<223> n = A,T,C or G

<400> 123
agcgtggtcg cggccgaggt cctcaaccaa gagggttgat ggcctccagt caagaaactg 60
tggctcatgc cagcagagct ctctcctcgt ccagcaggcg ccatgcaagg gcaggctaaa 120
agacctccag tgcatcaaca tccatctagc anagagaaaa ggggcactga agcagctatg 180
tctgccaggg gctaggggct cccttgcaga cagcaatgct acaataaagg acacagaaat 240
gggggaggtg ggggaagccc tatttttata acaaagtcaa acagatctgt gccgttcatt 300
cccccagaca cacaagtaga aaaaaaccaa tgcttgtggt ttctgccaag atggaatatt 360
cctccttcct aanttccaca catggccgtt tgcaatgctc gacagcattg cactgggctg 420
cttgtctctg tggtctgggc accagtagct tgggccccat atacacttct cagttcccac 480
anggcttatg gccnangggc angctccaat tttcaagcac cacgaaggaa g 531

<210> 124
<211> 416
<212> DNA
<213> Homo sapiens

<400> 124
tcgagcggcc gcccgggcag gtccatctat actttctaga gcagtaaatc tcataaattc 60
acttaccaag cccaggaata atgactttta aagccttgaa tatcaactaa gacaaattat 120
gccaattctg atttctcaca tatacttaga ttacacaaag ataaagcttt agatgtgatc 180
attgtttaat gtagacttat ctttaaagtt tttaattaaa aactacagaa gggagtaaac 240
agcaagccaa atgatttaac caaatgattt aagagtaaaa ctcactcaga aagcattata 300
cgtaactaaa tatacatgag catgattata tacatacatg aaactgcaat tttatggcat 360
tctaagtaac tcatttaagt acatttttgg catttaaaca aagatcaaat caagct 416

<210> 125
<211> 199
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<222> 112, 160, 195
<223> n = A,T,C or G

<400> 125
agcgtggtcg cggccgaggt gctttttttt ttttttttt ttttttttt gctattctaa 60
aggggaaggc ccctttttat taaacttgta cattttactt tccttctttc anaatgctaa 120
taaaaaactt ttgtttatac ttaaaaaaac cataaatcan acaaacaaaa gaaacgattc 180
caacatcact tctgngatg 199

<210> 126
<211> 490
<212> DNA
<213> Homo sapiens

<400> 126
cgtggtcgcg gccgaggtcc agttgctcta agtggattgg atatggttgg agtggcacag 60
actggatctg ggaaaacatt gtcttatttg cttcctgcca ttgtccacat caatcatcag 120
ccattcctag agagaggcga tgggcctatt tgtttggtgc tggcaccaac tcgggaactg 180
gcccaacagg tgcagcaagt agctgctgaa tattgtagag catgtcgctt gaagtctact 240
tgtatctacg gtggtgctcc taagggacca caaatacgtg atttggagag aggtgtggaa 300
atctgtattg caacacctgg aagactgatt gacttttag agtgtggaaa aaccaatctg 360
agaagaacaa cctaccttgt ccttgatgaa gcagatagaa tgcttgatat gggctttgaa 420
ccccaaataa ggaagattgt ggatcaaata agacctgata ggcaaactct aatgtggagt 480
gcgacttggc 490

<210> 127
<211> 490
<212> DNA
<213> Homo sapiens

<400> 127
cgtggtcgcg gccgaggtcg gccgaggtct ggagatctga gaacgggcag actgcctcct 60
caagtgggtc cctgacccct gacccccgag cagcctaact gggaggcacc ccccagcagg 120
ggcacactga cacctcacac ggcagggtat tccaacagac ctgaagctga gggtcctgtc 180
tgttagaagg aaaactaaca agcagaaagg acagccacat caaaaaccca tctgtacatc 240
accatcatca aagaccaaaa gtaaataaaa ccacaaagat gggaaaaaaa cagaacagaa 300
aaactggaaa ctctaaaaag cagagcacct ctcctcttcc aaaggaacgc agttcctcac 360
cagcaatgga acaaagctgg atggagaatg actttgacga gctgagaaaa gaacgcttca 420
gacgatcaaa ttactctgag ctacgggagg acattcaaac caaaggcaaa gaagttgaaa 480
actttgaaaa 490

<210> 128
<211> 469
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 69, 106, 140, 152, 165, 196, 224, 233, 241, 258, 260, 267,
291, 347, 395

<223> n = A,T,C or G

<400> 128
cgtggtcgcg gccgaggtgc ttttttttt ttttttttt ttttttttt tgctgattta 60
ttttttctnt ttattgttac atacaatgta taaacacata aaacanaaaa cagtagggat 120
cctctaggat ctctagggan acagtaaagt anaaagaggt ctcanaaaca ttttttttaaa 180
gtacaagaca ttcagngctc ggcccaaagg cgtaaaaggt ttanagccag canatagctg 240
nactaaaggc tccgtctntn tccccanagc caggacaacc ccagggagct ntccattagc 300
agccagtcca cgcaggcagg atgctgcgga aaaagctcta tgctganaac attccccttg 360
atggaaagaa gggcaacaca aaaggggtaa ctaanagctc cttcctctcg tgagggcgac 420
aactgaggaa cagaaaagga gtgtcccatg tcacttttga ccccctccc 469

<210> 129
<211> 419
<212> DNA
<213> Homo sapiens

<400> 129
gcgtggtcgc ggccgaggtc tgattttcat ttaaatattt cagagctata gcatttgcct 60
ccatgctcaa atccacacca ttggggctta agccgctcat gccaacatta gcaaatgaca 120
tgcagtttaa tccagagatc actgcttctg ggctgatgca tgccaacaca ctggcgtgat 180
ccacgttatg tgcatttttc ttcactttag tgggagaatc aatttttact ccaaggcttc 240
ttagttgctt aagagttgca ttaaggacac aatctttgtc caccagtctt gaatgatgtg 300
ttttttttctt tgtatggtaa acgttttggg ttctggtgca ttcatgactg ataattactg 360
ctttggtaga cggctgctca agtttccttg gaggaactat ttaataggtg ggttacttg 419

<210> 130
<211> 354
<212> DNA
<213> Homo sapiens

<400> 130
agcgtggtcg cggccgaggt ccatctgagg agataaccac atcactaaca aagtgggagt 60
gaccccgcag agcacgctgt ggaattccat agttggtctc atccctggtc agtttccaca 120
tgatgatggt cttatctcga gaggcggaga ggatcatgtc cgggaactgc ggggtagtag 180
cgatctgggt tacccagccg ttgtggccct tgagggtgcc acgaagggtc atctgctcag 240
tcatggcggc ggcgagagcg tgtgtcgctg cagcgacgag gatggcactg gatggcttag 300
agaaactagc accacaacct ctcctgccgc acctgcccgg gcggcccgct cgaa 354

<210> 131
<211> 474
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 421
<223> n = A,T,C or G

<400> 131
cgagcggccg cccgggcagg tctggcagca gcttcctctg gaataattga cagctttgtg 60
ctgcctgact aaaatttgaa atgacaaccg ctgaatgtaa aatgatgtac ctacaatgag 120
agagatttag gaatactatc tgtcaatcca tagatgtaga aacaaaacaa actacagaat 180
gaaaacaaac ttattttaaa ccaaagaaac aaatgtatcc aaaatatagt ccatgatata 240

tttgattact agtataacca cagttgaaaa cttaaaaaaa aaaattgaca ttttttgtaa 300
tgggtactaa tggatttata aaaggtttct gtttccaaag atgttattgg ggtccacata 360
ttccttgaag acttcagcat cccaaagccc gacatcagag atactttcct ttagccattg 420
nttcccgtaa cttgcccact ccatggtgat gtgacaggct tcccttcatt agca 474

<210> 132
<211> 474
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 403
<223> n = A,T,C or G

<400> 132
ggccgaggtg gggaattcat gtggaggtca gagtggaagc aggtgtgaga gggtccagca 60
gaaggaaaca tggctgccaa agtgtttgag tccattggca agtttggcct ggccttagct 120
gttgcaggag gcgtggtgaa ctctgcctta tataatgtgg atgctgggca cagagctgtc 180
atctttgacc gattccgtgg agtgcaggac attgtggtag gggaagggac tcattttctc 240
atcccgtggg tacagaaacc aattatcttt gactgccgtt ctcgaccacg taatgtgcca 300
gtcatcactg gtagcaaaga tttacagaat gtcaacatca cactgcgcat cctcttccgg 360
cctgtcgcca gccagcttcc tcgcatcttc accagcatcg ganaggacta tgatgaaccg 420
tgtgctgccg tccatcacaa ctgagatcct caagtcagtg gtggctcgct ttga 474

<210> 133
<211> 387
<212> DNA
<213> Homo sapiens

<400> 133
tgctcgagcg gccgccagtg tgatggatat ctgcagaatt cggcttagcg tggtcgcggc 60
cgaggtctgc gggcccctta gcctgccctg cttccaagcg acggccatcc cagtagggga 120
ctttcccaca ctgtgccttt acgatcagcg tgacagagta gaagctggag tgcctcacca 180
cacggcccgg aaacagcggg aagtaactgg aaagagcttt aggacagctt agatgccgag 240
tgggcgaatg ccagaccaat gatacccaga gctacctgcc gccaacttgt tgagatgtgt 300
gtttgactgt gagagagtgt gtgtttgtgt gtgtgttttg ccatgaactg tggccccagt 360
gtatagtgtt tcagtggggg agaactg 387

<210> 134
<211> 401
<212> DNA
<213> Homo sapiens

<400> 134
ggccgcccgg gcaggtctga tgaagaacac gggtgtgatc cttgccaatg acgccaatgc 60
tgagcggctc aagagtgttg tgggcaactt gcatcggctg ggagtcacca acaccattat 120
cagccactat gatgggcgcc agttccccaa ggtggtgggg ggctttgacc gagtactgct 180
ggatgctccc tgcagtggca ctggggtcat ctccaaggat ccagccgtga agactaacaa 240
ggatgagaag gacatcctgc gcttgtgctc acctccagaa ggaagttgct cctgagtgct 300
attgactctt gtcaatgcga ccttcaagac aggaggctac ctggtttact gcacctgttc 360
tatcacagtg agacctctgc catggcagaa caggggaagc t 401

<210> 135

<211> 451
<212> DNA
<213> Homo sapiens

<400> 135
ggtcgcggcc gaggtctgtt cctgagaaca gcctgcattg gaatctacag agaggacaac 60
taatgtgagt gaggaagtga ctgtatgtgg actgtggaga aagtaagtca cgtgggccct 120
tgaggacctg gactgggtta ggaacagttg tactttcaga ggtgaggtgt cgagaaggga 180
aagtgaatgt ggtctggagt gtgtccttgg ccttggctcc acagggtgtg ctttcctctg 240
gggccgtcag ggagctcatc ccttgtgttc tgccagggtg gggtaccggg gtttgacact 300
gaggagggta acctgctggc tggagcggca gaacagtggc cttgatttgt cttttggaag 360
attttaaaaa ccaaaaagca taaacattct ggtccttcac aatgctttct ctgaagaaat 420
acttaacgga aggacttctc cattcaccat t 451

<210> 136
<211> 411
<212> DNA
<213> Homo sapiens

<400> 136
ggccgcccgg gcaggtctga atcacgtaga atttgaagat caagatgatg aagccagagt 60
tcagtatgag ggttttcgac ctgggatgta tgtccgcgtt gagattgaaa atgttccctg 120
tgaatttgtg cagaactttg acccccttta ccccattatc ctgggtggct tgggcaacag 180
tgagggaaat gttggacatg tgcaggtggg tccctttgct gcgtatttgg tgcctgaggc 240
tctgtggatt tcccctccat caatcatctt accctctcat ccccctcaga tgcgtctgaa 300
gaaacatctc tggtataaga aaatcctcaa gtcccaagat ccaatcatat tttctgtagg 360
gtggaggaag tttcagacca tcctgctcta ttatatccga agaccacaat g 411

<210> 137
<211> 211
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 186
<223> n = A,T,C or G

<400> 137
cggccgcccg ggcaggtcgg ttggtgcggc ctccattgtt cgtgttttaa ggcgccatga 60
ggggtgacag aggccgtggt cgtggtgggc gctttggttc cagaggaggc ccaggaggag 120
ggttcaggcc ctttgcacca catatcccat ttgacttcta tttgtgtgaa atggcctttc 180
cccggntcaa gccagcacct cgatgaaact t 211

<210> 138
<211> 471
<212> DNA
<213> Homo sapiens

<400> 138
gccgcccggg caggtctggg ctggcgactg gcatccaggc cgtaactgca aatctatgct 60
aggcggggtc tcccttctgt gtgttcaagt gttctcgact tggattctta actattttaa 120
aaaatgcact gagtttgggt taaaaaccaa ccaccaaaat ggatttcaac acagctctaa 180
agccaagggc gtggccggct ctcccaacac agcgactcct ggaggccagg tgcccatggg 240

cctacatccc ctctcagcac tgaacagtga gttgattttt ctttttacaa taaaaaaagc 300
tgagtaatat tgcataggag taccaagaaa ctgcctcatt ggaaacaaaa actatttaca 360
ttaaataaaa agcctggccg caggctgcgt ctgccacatt tacagcacgg tgcgatgcac 420
acggtgacca aaccacggag gcaagcttct ggcactcaca ccacgacccg c 471

<210> 139
<211> 481
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 384
<223> n = A,T,C or G

<400> 139
gtcgcggccg aggtctgttc tttagctcag atttaaacct gctgtctctt ctttatttgc 60
agaatgaatt cccagttcct gagcagttca agaccctatg gaacgggcag aagttggtca 120
ccacagtgac agaaattgct ggataagcga agtgccactg ggttctttgc cctcccttca 180
caccatggga taaatctgta tcaagacggt tcttttctag atttcctcta ccttttttgct 240
cttaaaactg cttctctgct ctgagaagca cagctacctg ccttcactga aatatacctc 300
aggctgaaat ttggggtggg atagcaggtc agttgatctt ctgcaggaag gtgcagcttt 360
tccatatcag ctcaaccacg ccgncagtcc attcttaagg aactgccgac taggactgat 420
gatgcatttt agcttttgag cttttggggg gtattctacc aaccaacagt ccatttggaa 480
a 481

<210> 140
<211> 421
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 372
<223> n = A,T,C or G

<400> 140
gtcgcggccg aggtttccca tttaagaaaa atagatcttg agattctgat tcttttccaa 60
acagtcccct gctttcatgt acagcttttt ctttacctta cccaaaattc tggccttgaa 120
gcagttttcc tctatggctt tgcctttctg attttctcag aggctcgagt ctttaatata 180
accccaaatg aaagaaccaa ggggaggggt gggatggcac ttttttttgt tggtcttgtt 240
ttgttttgtt ttttggttgg ttgggttccg ttatttttta agattagcca ttctctgctg 300
ctatttccct acataatgtc aatttttaac cataatttg acatgattga gatgtacttg 360
aggctttttt gntttaattg agaaaagact ttgcaatttt ttttttagga tgagcctctc 420
c 421

<210> 141
<211> 242
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 4, 6, 20, 31, 35, 39, 72, 94, 141, 142, 211, 222

<223> n = A,T,C or G

<400> 141
cgantngccc gcccgggcan gtctgtctaa ntttntcang gaccacgaac agaaactcgt 60
gcttcaccga anaacaatat cttaaacatc gaanaattta aatattatga aaaaaaacat 120
tgcaaaatat aaaataaata nnaaaaggaa aggaaacttt gaaccttatg taccgagcaa 180
atccaggtct agcaaacagt gctagtccta nattacttga tntacaacaa cacatgaata 240
ca 242

<210> 142
<211> 551
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 15, 19, 32, 73, 110, 278, 405, 436, 473, 510
<223> n = A,T,C or G

<400> 142
agcgtggtcg cggcncgang tccacagggc anatattctt ttagtgtctg gaattaaaat 60
gtttgaggtt tangtttgcc attgtctttc caaaaggcca aataattcan atgtaaccac 120
accaagtgca aacctgtgct ttctatttca cgtactgttg tccatacagt tctaaataca 180
tgtgcagggg attgtagcta atgcattaca cagtcgttca gtcttctctg cagacacact 240
aagtgatcat accaacgtgt tatacactca actagaanat aataagcttt aatctgaggg 300
caagtacagt cctgacaaaa gggcaagttt gcataataga tcttcgatca attctctctc 360
caaggggccc gcaactaggc tattattcat aaaacacaac tgaanagggg attggtttta 420
ctggtaaatc atgtgntgct aaatcatttt ctgaacagtg gggtctaaat cantcattga 480
tttagtggca gccacctgcc cggcggccgn tcgaagccca attctgcaga tatccatcac 540
actggcggcc g 551

<210> 143
<211> 515
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 5, 286, 498
<223> n = A,T,C or G

<400> 143
cgagnggccc gcccgggcag gtatcttcac aaactcaaca aaggcactac atgagacttc 60
acattcccct agtccaatag ctgacaaatt tttgcaacgt tctgcaatgc gaattaactc 120
ttcatcaagt ggccgtaatc catttgcaca cactactagt tcaaccagtc tagggcatgt 180
cattcccaca cggccaagca catctttgct tactgatctc ccaaagtaca gatgggtggc 240
aggtatttca tagcgaaaga aggggtcaaa ttcttcttca tataanaaaa aatacatcac 300
taagttcact ttgggtgaat gtctgatgaa agcatcccag ctactcttct gaatagtatg 360
gaagtgtgtc tgtccaggat tctcactgac tacatcaatg cgcaaatgtt ctaatcgaac 420
atgtttttca gaagacaatg caagtaacaa ctcatcactc aataagtggt aagttcaggg 480
ctagttctct taagccgnga cactgatcag cacac 515

<210> 144
<211> 247

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 11, 20, 42, 115, 152, 165, 181, 195, 208, 221
<223> n = A,T,C or G

<400> 144
tgcattctct ntggatgcan acctgcccgt tggtagggac tntgctcaca cggaacatgg 60
acggttacac ctgtgccgtg ggtgacgtcc accagcttct ggatcatctc ggcgngggtg 120
ttgtggaagg gcagactatc cacctccatg cncacgatgc ccganacgcc actccggact 180
ntgtgctgca ccaanatgcc cagcattnta tcttcaagca nagcacttat cagggtcctt 240
ggcacac 247

<210> 145
<211> 309
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 18, 155, 247
<223> n = A,T,C or G

<400> 145
cgtgggtcgc ggcccgangt ctgctgtaac aaaacaccat agtctgggca gctcatagac 60
aatggaattt tatttctcac gcttctggag gctggattcc aagatcaagg ttccaggaga 120
ctcagtgtct ggcaaggtct cggtttctgc ctcanagatg gtgccatctg gctgtgtcct 180
cacaagtagg aaggtgcaag aagctcccct caggctctgt ctgtaagaca ctgatcccat 240
tcatganggg gaaacgtaat gacctaatca gcccccagag accccacttc taacaccatc 300
accttgggg 309

<210> 146
<211> 486
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 16, 97, 154, 244, 275, 322, 347, 349, 352, 357, 449, 460,
472
<223> n = A,T,C or G

<400> 146
agcgtgggtc gcggcncgac gtcctgtcca tatttcacag cccgagaact aatacaagat 60
gctgacatca tattttgtcc ctacaactat cttctanatg cacaaataag ggaaagtatg 120
gatttaaatc tgaaagaaca ggttgtcatt ttanatgaag ctcataacat cgaggactgt 180
gctcgggaat cagcaagtta cagtgtaaca gaagttcagc ttcggtttgc tcgggatgaa 240
ctanatagta tggtcaacaa taatataagg aaganagatc atgaacccct acgagctgtg 300
tgctgtagcc tcattaattg gntagaagca aacgctgaat atcttgnana angagantat 360
gaatcagctt gtaaaatatg gagtggaaat gaaatgctct taactttaca caaaatgggt 420
atcaccactg ctacttttcc cattttgcng gtaagatatn ttttctacct gngaaacgta 480
tttaag 486

<210> 147
<211> 430
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 13, 26, 28, 289, 299, 352, 390, 399
<223> n = A,T,C or G

<400> 147
gccgcccggg cangttcgac attacntnga gttccatgat gtacaattct ttcacgaaaa 60
acaatgaatg caagaatttg aggatctcct tactcctccc ttttacagat ggtctctcaa 120
tccctttcttc ttcctcttca tcttcatctt cttctgaacg cgctgccggg taccacggct 180
ttctttgtct ttatcgtgag atgaaggtga tgcttctgtt tcttctacca taactgaaga 240
aatttcgctg caagtctctt gactggctgt ttctccgact tcgcctttnt gtcaaacgng 300
agtcttttta cctcatgccc ctcagcttca cagcatcttc atctggatgt tnatttctca 360
aagggctcac tgaggaaact tctgattcan atgtcgaana gcactgtgaa gttttctctt 420
cattttgctg 430

<210> 148
<211> 483
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 20, 24, 53, 55, 374, 381, 423, 431, 459
<223> n = A,T,C or G

<400> 148
cccgggcagg tctgtgttgn tttncaaccg gtgtcctccc cagcgtccag aananggaaa 60
tgtggagcgg gtgatgatga cccctcgctg tcctgtcacc tcctgcacag cttcgtatgt 120
gggtctggtc tgggaccacc cgtacaggtt gtgcacgttg tagtgctcca cgggggagct 180
gtccggcagg atctgctgac tctccatgca cagagtcttg ctgctcaggc ccttgtccct 240
agattccaaa tatggcatat agggtggggt tatttagcat ttcattgctg cagcccctga 300
cagatccatc cacaaaattt gatggctcat tcatatcaat ccacaatcca tcaaacttca 360
agctcttctc tggntctcga nggtttgcat agaactcttc tatctctttc ttccaccacg 420
canacctcgg ncgcgaccac gctaagccga attctgcana tatccatcac actggcggcc 480
gct 483

<210> 149
<211> 439
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 11, 359, 384, 402
<223> n = A,T,C or G

<400> 149
ctttcacgaa nacaatgaat gcaagaattt gaggatctcc ttactcctcc cttttacaga 60

tggtctctca atcccttctt cttcctcttc atcttcatct tcttctgaac gcgctgccgg 120
gtaccacggc tttctttgtc tttatcgtga gatgaaggtg atgcttctgt ttcttctacc 180
ataactgaag aaatttcgct gcaagtctct tgactggctg tttctccgac ttcgcctttt 240
tgcaaacgtg agtcttttta cctcatgccc ctcagcttcc acagcatctt catctggatg 300
ttcatttctc aaagggctca ctgaggaaac ttctgactca catgtcgaag aagcactgng 360
agtttctctt catttgctgc aaanttgctc tttgctggct gngctctcag accacccatt 420
tggctgcatg ggggctgac 439

<210> 150
<211> 578
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 4, 15, 260, 336, 371, 430, 461, 535, 572
<223> n = A,T,C or G

<400> 150
ggcncgcccg ggcangtcca ctccactttt gagctctgag ggaatacctt caggagggac 60
agggtcaggg agtcctggca gctccgcagc agagattcac attcattcag agacttgttg 120
tccagtgcaa tgccattgat cgcaacgatc ctgtctccca cagcaaggga cccttcttta 180
gcggcagggc ttccaggcag cacagcggca gcatacactc cattctccag actgatgcca 240
ctgtctttct gtccactgan gttgatgtgc agcggcgtga ccaccttccc acccagggac 300
ttcctccgcc gcacgaccat gttgatgggc cccctnccca ttgaggagcg ccttgatggc 360
ctgcttcttg nccttggtga tgaagtccac atcggtgatt ctcacagcca gtcattgacc 420
cttaagcggn catcagcaat gcttcctttg gccactttag ngacaaatat gccacagtcc 480
ccgggaaaca agggtcattc acaccttctg gcatatcaaa cacctcggcc gggancacta 540
agccgaattc tgcagatatc catcacactg gngggccg 578

<210> 151
<211> 503
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 392, 464
<223> n = A,T,C or G

<400> 151
cgagcggccc gcccgggcag gtctgggaga tcagcgactg ctgccacgtg cccagaaatg 60
gctcgtcctt tcactacagc ggaatgcaat gagggtgggt gagaagatga tgggtcggtt 120
atttcattcc ttttcttttt acaacttcac tttcagagac ttcagcgttc catgtctgct 180
gtgctgtgga acccagagtg ctcttgcctg gatggctgag aatcccttgg accctggaag 240
cacctactcc atgatggccc ggtatagtgc aggctcaata taatcttccc ggtatcttga 300
gttgataact cgttgccgtt tcttttcttg cttaacctct ttctctgtga aaatctcatt 360
gaagcgcatg tctgaagcta ctgacagtct anatttgact ctcttgggaa gctcttcatc 420
cagtgtgtat acatcatctc tcttaaccac aagttggagc catncttaaa cttcacctgg 480
tacatttgga tagggtggga ggc 503

<210> 152
<211> 553
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<222> 293, 432, 459, 481, 536
<223> n = A,T,C or G

<400> 152
agcgtggtcg cggcccgagg tccactgagc tccgccttcc ccgggctccc tgaggaagca 60
gagtcctgac ttccaggaag gacaggacac agaggcaaga actcagcctg tgaggctctg 120
ggtggctcct gaggccagag gacgccttcc gcgatccatg gctcagcatc gtccttctgg 180
cttcccagcc ccgggccgaa cgttcgggtt aataagcaga gcagttattc ggctcctggc 240
aggagctccc ccgttagttt ccacgttgtg agcacattca tacttaagac tgnttctctt 300
tgtgttttaa gcgtctgtct ctgtagtaaa ctgaaatgtt aacagaaatg cagacctgcc 360
cgggcggccg ctcgaaagcc gaattctgca gatatccatc acactggcgg ccgctcgagc 420
atgcatctag anggcccaat tcgccctata gtgagtcgna ttacaattca ctgggccgcg 480
ntttacaacg tcgtgactgg gaaaaccctg cggtacccac ttaatcgcct tgcagnacat 540
ccccctttcg cca 553

<210> 153
<211> 454
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 198, 307, 325, 347, 386, 389, 392, 415, 425
<223> n = A,T,C or G

<400> 153
tcgagcggct cgcccgggca ggtccaccta gcatggctcc tctaaacacg caactcagcg 60
aggggacccc cttcacctct ggcaagagag ctgggtagat cagaaacttg gtgacacctg 120
gctagcacag agcaggctca cttgtcttgg tcccactacc cagattcctg cagacattgc 180
aaaccaaatg aaggttgntg aatgacccct gtccccagcc acttgttttg gtatcatctg 240
ctctgcagtg gaatgcctgt gtgtttgagt tcactctgca tctgtatatt tgagtataga 300
aaccgantca agtgatctgt gcatncagac acactggggc acctgancac agaacaaatc 360
accttaacga tctggaatga aactgnganc antgcccgcc tgggtgggtc tgganaaact 420
gccgncttct tgttggacct tggccgcacc acct 454

<210> 154
<211> 596
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 19, 33, 37, 131, 377, 425, 439, 505
<223> n = A,T,C or G

<400> 154
agcgtggtcg cggcccgang gcggcctcct gantganggg aagggacgtg ggggcggcca 60
cggcaggatt aacctccatt tcagctaatc atgggagaga ttaaagtctc tcctgattat 120
aactggttta naggtacagt tccccttaaa aagattattg tggatgatga tgacagtaag 180
atatggtcgc tctatgacgc gggccccga agtatcaggt gtcctctcat attcctgccc 240

cctgtcagtg gaactgcaga tgtcttttc cggcagattt tggctctgac tggatggggt 300
taccgggtta tcgctttgca gtatccagtt tattgggacc atctcgagtt cttgtgatgg 360
attcacaaaa cttttanacc atttacaatt ggataaagtt catcttttg gcgcttcttt 420
gggangcttt ttggcccana aatttgctga atacactcac aaatctccta gaagccattc 480
cctaatcctc tgcaattcct tcagngacac ctctatcttc aaccaacttg gactggaaac 540
agctttggct gatgcctgca tttatgctca aaaaatagtt cttggaaatt ttcatc 596

<210> 155
<211> 343
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 6, 12, 23, 44, 58, 86, 99, 279, 310, 319
<223> n = A,T,C or G

<400> 155
ctcganttgg cncgcccggg cangtctgcc tggtttttga ccgngcgagc tatttagnct 60
ctggctctgt ttccggagct caaggnaaaa atcttgaana actcgagcag cttctgtgga 120
tagccttggg tacacatact gccgagcata gccaatgtac tttctcaata gctggtgggg 180
aatgggatct attgtttctc caggaaccac ctttagtctt tctgataatg gcttctcaga 240
aactacttca agtacggaag tatttgaatc ttgactatnc atacgagcta ctgtggcact 300
gctaatgggn tctctgctnt ccagctctta ttgcaatcac atg 343

<210> 156
<211> 556
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 34, 375, 530
<223> n = A,T,C or G

<400> 156
tcgagcggcc cgcccgggca ggtctggcac cacncagatc gattaactgg ctcatctgat 60
ctcgtggccc ccaccctgga actgacttag cacaaaagga cacctcaatt ccttatgatt 120
tcatctccga cccaaccaat caacaccctt gactcactgg ccttcccccc cccaccaaat 180
tatccttaaa aactctgatc cccgaatgct cagggagatc gatttgagta ctaataagac 240
tccagtctcc tgcacaagca gctctgtgta ctcttcctct attgcaattc ctgtcttgat 300
aaatcggctc tgtgtaggcg gcggaagaag tgaacctgtt gggcggttac cacctctgtc 360
gtgtgtgaca gttgntttga atctctaatt gctcagtaca gatccacatg caggttaagt 420
aagaagcttt tgaagaaaat ggaaagtctt aagtgatggc ttccaagaaa tcaaacctac 480
attaattagg gaacaacgga ctttacgtat cacaaatgaa gagactgacn aagtaaatca 540
acttggcctt ttctta 556

<210> 157
<211> 333
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<222> 18, 40, 55, 57, 60, 91, 97, 103, 110, 161, 173, 193, 195,
196, 214, 231, 233, 238, 263, 264, 266, 283, 284, 287, 297,
298, 323, 331
<223> n = A,T,C or G

<400> 157
ggtccacaaa aatatatnaa ataagctgga tatataaaan caaacactta acatngncan 60
cattccttca gttattcaaa ctcactgata nctaacnggg agnagttggn attctggaag 120
acttcctaag ctaaaagtat atttacatat ttacaacaca ngtaaatata acngaagaac 180
tacttcaaat aangnngaaa ttccagaatt ctanagattt atagctatag ntnacaanta 240
tcaccaattg gtttgcaatc aanngnccag cactacttat gannaangtt taactannaa 300
accaaaaggg gagaaaacct ggnagggaaa nat 333

<210> 158
<211> 629
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 345, 565
<223> n = A,T,C or G

<400> 158
tcgagcggcc gcccgggcag gtctggtaca tttgtgcgag gtccggcact ctgttctcat 60
ccagtaagtg gtcgagccct ttctgcagaa ttgctgttaa atgttctcct aatagctgtt 120
tctccacaca agcaatcagt ggtttctgtg tgctgtggtc caagtaagtg attactctgt 180
ctccctcttc ttctaagcgt ttacttacat ggttaagata ttctggaacc tctctttcct 240
gcattaacct ttggccttcg gcagcatata agcaattagt ctcttccaaa aatttcagtt 300
caaatgaatc tttatacacc tgcaggtcag acagcatgcc caggnaggct ccgcaacagg 360
ctccggtcca cggcctcgcc gctcctctcg cgctcgatca gcagtaggat tccatcaatg 420
gttttactct gaaccatttt atcactaata atatgggttc taaacagttc taatcccata 480
tcccagatgg agggcagcgt ggagttctgc agcacatagg tgcggtccaa gaacaggaag 540
atgcttctga tcatgaatca tttgnctggc aatggtcctg ccagcacgtg gtaatctttc 600
ttttaaaaat aaacccttat ctaaacgtc 629

<210> 159
<211> 629
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 33, 546, 576
<223> n = A,T,C or G

<400> 159
tcgagcggcc gcccgggcag gttctagagg ganaatctgg ctgatttggg aataaaatat 60
aatcgaatat tcaacaccat gaagataaat cttatttttgg aaatctactg accttaatac 120
cccaagcttg ccctgaatac tttgattgga attggaatat atcaaaaaag gttagtattt 180
ttgttgtagt taggatacta aaaggatatt agttacccaa gagatccaat ttgtttttct 240
gatgaatagt gttcagtaaa atgaagcagt cttaagagtg actaataatt tcaaagtgat 300
ttttcgtcta ttcttaatat tttttaatta tttatttttа agagttttat accttgagca 360
gatacaatga tccgctttag tgagaggaca atttctgatt gattgttttc tcttcaggcc 420

atctcacctc ttcattctct tgttacattt gaagcagttg atataatggg tttatacttt 480
aaaagataga catggtgcca tgaagtttgg ggaagttggg tgaattatcc cattctagtt 540
acagangagc tttccttaaa tgccctttac ttctangttt ggtcaagaag tcattttctg 600
agtaaaagtt attttcatat atgttgggg 629

<210> 160
<211> 519
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 46, 309, 397, 430, 434, 471, 497
<223> n = A,T,C or G

<400> 160
tcgagcggcg cgcccgggca ggtctgctgg gattaatgcc aagttnttca gccataaggt 60
agcgaaatct agcagaatcc agattacatc cacttccaat cacgcggtgt ttgggtaatc 120
cacttagttt ccagataaca tacgtaagaa tgtccactgg gttggaaacc acaattatga 180
tgcaatcagg actgtacttg acgatctgag gaataatgaa tttgaagaca ttaacatttc 240
tctgcaccag attgagccga ctctcccctt cttgctgacg gactcctgca gttaccacta 300
caatcttana attgggcggg tcacagaata atctttatct gccacaattt taggtgctga 360
agaaataagc tcccatgctg cagatccatc atttctnctt taagcttatc ttccaaaaca 420
tccacaagan caangttcat cagccagaga ctttcccaga atgctgatag nacacgccat 480
accaacttgt ccaacancca ctacagcgat cttattggt 519

<210> 161
<211> 446
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 5, 32, 36, 269, 354, 381
<223> n = A,T,C or G

<400> 161
cgagnggccc gcccgggcag gtccagtaag cntttnacga tgatgggaaa ggttatgcaa 60
ggtcccagcg gtacaacgag ctgtttctac atcatttgta ttctgcatgg tacgtacaat 120
agcagacacc atctgaggag aacgcatgat agcgtgtctg gaagcttcct ttttagaaag 180
ctgatggacc ataactgcag ccttattaac caccacctgg tcctcgtcat ttagcagttt 240
tgtcagttca gggattgcac gtgtggcang ttctgcatca tcttgatagt taatcaagtt 300
tacaactggc atgtttcagc atctgcgatg ggctcagcaa acgctggaca ttantgggat 360
gagcagcatc aaactgtgta natgggatct gcatgccctc atctaatgtc tcagggaaca 420
tagcagctcg taccctctga gctcga 446

<210> 162
<211> 354
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 6, 19, 36, 116, 152, 174, 186, 196, 223, 249

<223> n = A,T,C or G

<400> 162
agcgtngtcg cggcccgang tcctgggaag cctttnttgc tgagcctcac agcctctgtc 60
aggcggctgc ggatccagcg gtccaccagg ctctcatggc ctccgggctg ggaggngggt 120
gagggcacaa aacccttccc aaggccacga anggcaaact tggtggcatt ccanagcttg 180
ttgcanaagt ggcggnaacc cagtatccgg ttcacatcca ggntgatgtc acgaccctgg 240
gacatgtang cacataatcc aaaccggaga gcatcggtgc cacattcacg aatccccgct 300
gggaagtcag ctttctgccc ttctttggcc ttctccacct cgctgggatc cagg 354

<210> 163
<211> 258
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 7, 24, 32, 153, 198, 205
<223> n = A,T,C or G

<400> 163
tttttcncca agtcctcttg ccgngggatc tngactgcaa tttaagacac ttctaattag 60
ttatacccag gccctgcaaa attgctgggt ttatataata tattcttgct gcacgaagat 120
ttattattct gttggatgat tctattttaa ttntatttat tctggccaaa aaagaacctt 180
ctccgctcgt caagagangc caatntgtct tgaaggacaa gagaaagatg ctaacacaca 240
ctttcttctt cttgagga 258

<210> 164
<211> 282
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 97, 130, 163, 178, 203, 204
<223> n = A,T,C or G

<400> 164
ggaacatatt acttttaaat tacttgggtc aatgaaacat ttaataaaaa catttgcttc 60
tctatataat acgtatgtat aaaataagcc ttttcanaaa ctctggttct cataatcctc 120
tataaatcan atgatctgac ttctaagagg aacaaattac agnaaggggt atacattnat 180
gaatactggt agtactagag ganngacgct aaaccactct actaccactt gcggaactct 240
cacagggtaa atgacaaagc caatgactga ctctaaaaac aa 282

<210> 165
<211> 462
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 10, 33, 36, 49, 198, 222, 243, 278, 357, 385, 399, 405, 437
<223> n = A,T,C or G

<400> 165
gcccgggcan gtcctgtaat cccagctact cangangctg agtcatgana atcgcctgaa 60
tccgggaggt agaggccgca gcgagcaaag attaagccac tgcactccag tctgggtgac 120
agagtgagaa tctgtctgtt gctcctctgg cattggtctg aaatgggttt gtagaacatg 180
ccacagaagg accagcanca gcaacaaatg gatttgtgga angcgtagct ccaaatggag 240
cangcacact tgatgaagca cgctgtgtct gtgcagangc aaccactggc actgttccaa 300
aaacattgct gctagcatta cttgtggaag tatacgcatt actggaggtg gctgcanaac 360
tgaaaacgct gtctagttct gccanagctg catacttgnc tgaanatgca cttgactgac 420
tgggaactga accacanaac caacaggacc tttacctgtg ga 462

<210> 166
<211> 365
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 14, 18
<223> n = A,T,C or G

<400> 166
cgtgggtcgc ggcncgangt ctgaaaccaa tccagaacta aacatcagca cacaaaaaat 60
accaggatag atggaatcaa aagactctga agccaaaagg aggctaggga gagcaactga 120
acttagcaag ctgaggactt cagtgtccat catccgatcc tgccctgtaa caacaggtct 180
atatgataga gatattccat ctgagctgga ggccattatc cttagcaaac taacacagaa 240
cagaaaacca aatacatgtt ctcatttaga agtaggagct aaatgatgag aactcaagga 300
cacaaagaaa ggaacaacag acactggggc ctacttgagg gtggagggtg ggaggaggga 360
gaaga 365

<210> 167
<211> 364
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 19, 342, 361
<223> n = A,T,C or G

<400> 167
agcgtggtcg cggcgcgang tccagcccta gcttgcctgt gactccgcct tcactgggtg 60
ctctctctaa aagttgctga ctctttactg tatctcccaa ttcccactcc attggttcca 120
taaggggagg ggtgtctcac tcaacatggt gttcctggta ccaagaactg gctgacgaag 180
ctgggtgccg tggctcatgc ctgtaatccc agcacttttg ggaggccaag aagggcggat 240
cacctgaggt ctggagttca agatcagcct gaccaacatg atgaaaccaa gtctccacta 300
aaaatataaa acaattagcc aggcatggtg gtgggtgcct gnaatcccag ctactgggga 360
ngct 364

<210> 168
<211> 447
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<222> 407, 414, 437
<223> n = A,T,C or G

<400> 168
cccgggcagg tcaaaaccca aaacctttca ttttagccca aaccagctca tgattaggta 60
tacaaggata acagaaccag ttgtcaggac gagcatttga caagtaaaag caattcttgc 120
aaagctgcag ttcatccagc tcatggcatg tgtctttata tagcatcctc gcaatgtcag 180
cttgctcact gtctgctcca tagaaaatca cggtattgtg gagaagcaat tgggcatcag 240
ctttgaactc ttcataactt cggtatttcc cttcattcac tttctcttga atggtgggaa 300
cgtccacaga cctcggccgc gaccacgcta agcccgaatt ctgcagatat ccatcacact 360
ggcggccgtt cgagcatggc atctagaagg cccaattcgc ctatagngag tcgnattacc 420
aattcactgg ccgtcgnttt acaacgc 447

<210> 169
<211> 524
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 4, 6, 39, 40, 235, 248, 313, 340, 359, 382, 389, 420, 434,
442, 453, 496
<223> n = A,T,C or G

<400> 169
cgantngcgc gcccgggcag gtctgagcag cctttctgnn tgctggacta ttgggattgg 60
gttcatccaa cagagactgt atggatgtta gaatggaaga cacatcatag gttggactcc 120
aacggttctg aagtatgtcc agacatatac taccatctgc atagactaag aacaaagaag 180
taggtacatt aaacgtaaca agaccactaa ggttttaaca ttatagacaa aacanaaata 240
gtcaaganta ctttgctttt gaagtttaaa gattcctatg ttgcttccca gttaactgcc 300
taaaaagata agncataacc accactagtg aaataatcan gatgatcaga gaatgtcana 360
tgtgatcagt ataaaactgg angatattna gtgtcatcct ttggaaaagg ctgccctatn 420
atccaggaaa tcanaaacat tnttgaacag ggnccctagc tatccacaga catgtgggaa 480
attcattccc caaatngtag gctggatccc ctatctgaaa taac 524

<210> 170
<211> 332
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 5, 10, 63, 66, 90, 93, 96, 186, 207, 261, 290, 324, 326
<223> n = A,T,C or G

<400> 170
tcgancggcn cgcccgggca ggtgacaaac ctgttattga agatgttggt tctgatgagg 60
aanaanatca gaagggatgg tgacaagaan aanaanaaga agattaagga aaagtacatc 120
gatcaagaag agctcaacaa aacaaagccc atctggacca gaaatcccga cgatattact 180
aatgangagt acggagaatt ctataanagc ttgaccaatg actgggaaga tcacttggca 240
gtgaagcatt tttcagttga nggacagttg gaattcagag cccttctatn tgtcccacga 300
cgtgctcctt ttgatctgtt tganancaga aa 332

<210> 171
<211> 334
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 5, 9, 200, 228, 232
<223> n = A,T,C or G

<400> 171
cgagnggcnc gcccgggcag gtctgttgat agcgacttaa cagaaaagtc tagacaaaca 60
taagcataaa aaattacagt ctttctaccc ttgggaatgg ggagaaaaag gaatctctac 120
cccaagacca gaaataataa gtcctgtttc tggtcctgaa catccagaat tatggaggct 180
ttggcctgac accacattan aatttggtct ggaaatcaaa ctttaganac angagatcgt 240
aagccatttt atactatcga cctaaattcc agtctaacgg ttcctttaca aagttgcgga 300
aagccctctt atatgctagc tgtaggaaat atag 334

<210> 172
<211> 439
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 19, 375, 388, 390, 395, 409, 426, 434
<223> n = A,T,C or G

<400> 172
agcgtggtcg cggcccgang tctgcctata aaactagact tctgacgctg ggctccagct 60
tcattctcac aggtcatcat cctcatccgg gagagcagtt gtctgagcaa cctctaagtc 120
gtgctcatac tgtgctgcca aagctgggtc catgacaact tctggtgggg cgagagcagg 180
catggcaaca aattccaagt tagggtctcc aatgagcttc ctagcaagcc agaggaaggg 240
cttttcaaag ttgtagttac ttttggcaga aatgtcgtag tactgaagat tcttctttcg 300
gtggaagaca atggatttcg ccttcacttt ctgccttaat atccactttg gtgccacaca 360
acacaatggg gatgntttca cacacttngn accanatctc tatgccagnt aggccatttt 420
ggaagnactt cganggtac 439

<210> 173
<211> 599
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 5, 31
<223> n = A,T,C or G

<400> 173
cgatnggccg cccgggcagg tcctgtaaaa naggaaattc agacatcgta cgactcgtaa 60
ttgaatgtgg agctgactgc aatattttgt caaagcacca gaatagtgcc ctgcactttg 120
cgaagcagtc taacaatgtg cttgtgtacg acttgctgaa gaaccattta gagacacttt 180
caagagtagc agaagagaca ataaaggatt actttgaagc tcgccttgct ctgctagaac 240
cagtttttcc aatcgcatgt catcgactct gtgagggtcc agatttttca acagatttca 300

attaccaacc cccacagaac ataccagaag gctctggcat cctgctgttt atcttccatg 360
caaacttttt gggtaaagaa gttattgctc ggctctgtgg accgtgtagt gtacaagctg 420
tagttctgaa tgataaattt cagcttcctg tttttctggg tctcgctctg ttgtccaggc 480
tggagtgcag tggcgcggat tacagctcac tggagtcttg acttcccagg cacaagcaat 540
cctcccacct cagcctccta actacctggg actaaaaatg caccgccacc acattccgg 599

<210> 174
<211> 458
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 30, 32, 35, 51, 61, 213, 261, 327, 347, 359, 377, 418
<223> n = A,T,C or G

<400> 174
tcgatttggc cgcccgggca ggtccatgcn gnttntgccc attcccatgg ngcccgacaa 60
ncccatcccc gaggccgaca tccccatgtt catgttcatg cccaccatgc cctggctcat 120
ccctgcgctg ttccccagag gggccattcc catggtgccc gtcattacac cgggcatgtt 180
cataggcatg ggtcccccca ggagagggtt agnttgaggc cggacaggaa gcatgtttga 240
tggagaactg aggttcacag nctccaaaac tttgagtcat cacattcata ggctgctgca 300
tattctgtct gctgaatcca ttgtatncag tgatggcctg ctggggnttt ggaaggctng 360
cataccaggt agtaagntcg tctaggctga tgtttacacc tggggtcaga ccaagtanga 420
gggcaaggtt ttgctgactg attttctgga cccatatc 458

<210> 175
<211> 1206
<212> DNA
<213> Homo sapiens

<400> 175
ggcacgagga agttttgtgt actgaaaaag aaactgtcag aagcaaaaga aataaaatca 60
cagttagaga accaaaaagt taaatgggaa caagagctct gcagtgtgag gtttctcaca 120
ctcatgaaaa tgaaaattat ctcttacatg aaaattgcat gttgaaaaag gaaattgcca 180
tgctaaaact ggaaatagcc acactgaaac accaatacca ggaaaaggaa aataaatact 240
ttgaggacat taagatttta aaagaaaaga atgctgaact tcagatgacc ctaaaactga 300
aagaggaatc attaactaaa agggcatctc aatatagtgg gcagcttaaa gttctgatag 360
ctgagaacac aatgctcact tctaaattga aggaaaaaca agacaaagaa atactagagg 420
cagaaattga atcacaccat cctagactgg cttctgctgt acaagaccat gatcaaattg 480
tgacatcaag aaaaagtcaa gaacctgctt tccacattgc aggagatgct tgtttgcaaa 540
gaaaaatgaa tgttgatgtg agtagtacga tatataacaa tgaggtgctc catcaaccac 600
tttctgaagc tcaaaggaaa tccaaaagcc taaaaattaa tctcaattat gccggagatg 660
ctctaagaga aaatacattg gtttcagaac atgcacaaag agaccaacgt gaaacacagt 720
gtcaaatgaa ggaagctgaa cacatgtatc aaaacgaaca agataatgtg aacaaacaca 780
ctgaacagca ggagtctcta gatcagaaat tatttcaact acaaagcaaa aatatgtggc 840
ttcaacagca attagttcat gcacataaga aagctgacaa caaaagcaag ataacaattg 900
atattcattt tcttgagagg aaaatgcaac atcatctcct aaaagagaaa aatgaggaga 960
tatttaatta caataaccat ttaaaaaacc gtatatatca atatgaaaaa gagaaagcag 1020
aaacagaagt tatataatag tataacactg ccaaggagcg gattatctca tcttcatcct 1080
gtaattccag tgtttgtcac gtggttgttg aataaatgaa taaagaatga gaaaaccaga 1140
agctctgata cataatcata atgataatta tttcaatgca caactacggg tggtgctgct 1200
cgtgcc 1206

<210> 176
<211> 317
<212> PRT
<213> Homo sapiens

<400> 176

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Met Gly Thr Arg Ala Leu Gln Cys Glu Val Ser His Thr His Glu Asn
 1               5                  10                  15
Glu Asn Tyr Leu Leu His Glu Asn Cys Met Leu Lys Lys Glu Ile Ala
            20                  25                  30
Met Leu Lys Leu Glu Ile Ala Thr Leu Lys His Gln Tyr Gln Glu Lys
        35                  40                  45
Glu Asn Lys Tyr Phe Glu Asp Ile Lys Ile Leu Lys Glu Lys Asn Ala
    50                  55                  60
Glu Leu Gln Met Thr Leu Lys Leu Lys Glu Glu Ser Leu Thr Lys Arg
65                  70                  75                  80
Ala Ser Gln Tyr Ser Gly Gln Leu Lys Val Leu Ile Ala Glu Asn Thr
                85                  90                  95
Met Leu Thr Ser Lys Leu Lys Glu Lys Gln Asp Lys Glu Ile Leu Glu
            100                 105                 110
Ala Glu Ile Glu Ser His His Pro Arg Leu Ala Ser Ala Val Gln Asp
        115                 120                 125
His Asp Gln Ile Val Thr Ser Arg Lys Ser Gln Glu Pro Ala Phe His
    130                 135                 140
Ile Ala Gly Asp Ala Cys Leu Gln Arg Lys Met Asn Val Asp Val Ser
145                 150                 155                 160
Ser Thr Ile Tyr Asn Asn Glu Val Leu His Gln Pro Leu Ser Glu Ala
                165                 170                 175
Gln Arg Lys Ser Lys Ser Leu Lys Ile Asn Leu Asn Tyr Ala Gly Asp
            180                 185                 190
Ala Leu Arg Glu Asn Thr Leu Val Ser Glu His Ala Gln Arg Asp Gln
        195                 200                 205
Arg Glu Thr Gln Cys Gln Met Lys Glu Ala Glu His Met Tyr Gln Asn
    210                 215                 220
Glu Gln Asp Asn Val Asn Lys His Thr Glu Gln Gln Glu Ser Leu Asp
225                 230                 235                 240
Gln Lys Leu Phe Gln Leu Gln Ser Lys Asn Met Trp Leu Gln Gln Gln
                245                 250                 255
Leu Val His Ala His Lys Lys Ala Asp Asn Lys Ser Lys Ile Thr Ile
            260                 265                 270
Asp Ile His Phe Leu Glu Arg Lys Met Gln His His Leu Leu Lys Glu
        275                 280                 285
Lys Asn Glu Glu Ile Phe Asn Tyr Asn Asn His Leu Lys Asn Arg Ile
    290                 295                 300
Tyr Gln Tyr Glu Lys Glu Lys Ala Glu Thr Glu Val Ile
305                 310                 315
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<210> 177
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Made in the lab

<400> 177
ccaatcatct ccacaggagc 20

<210> 178
<211> 1665
<212> DNA
<213> Homo sapiens

<400> 178
gcaaactttc aagcagagcc tcccgagaag ccatctgcct tcgagcctgc cattgaaatg 60
caaaagtctg ttccaaataa agccttggaa ttgaagaatg aacaaacatt gagagcagat 120
cagatgttcc cttcagaatc aaaacaaaag aaggttgaag aaaattcttg ggattctgag 180
agtctccgtg agactgtttc acagaaggat gtgtgtgtac ccaaggctac acatcaaaaa 240
gaaatggata aaataagtgg aaaattagaa gattcaacta gcctatcaaa aatcttggat 300
acagttcatt cttgtgaaag agcaagggaa cttcaaaaag atcactgtga acaacgtaca 360
ggaaaaatgg aacaaatgaa aaagaagttt tgtgtactga aaaagaaact gtcagaagca 420
aaagaaataa aatcacagtt agagaaccaa aaagttaaat gggaacaaga gctctgcagt 480
gtgaggtttc tcacactcat gaaaatgaaa attatctctt acatgaaaat tgcatgttga 540
aaaaggaaat tgccatgcta aaactggaaa tagccacact gaaacaccaa taccaggaaa 600
aggaaaataa atactttgag gacattaaga ttttaaaaga aaagaatgct gaacttcaga 660
tgaccctaaa actgaaagag gaatcattaa ctaaaagggc atctcaatat agtgggcagc 720
ttaaagttct gatagctgag aacacaatgc tcacttctaa attgaaggaa aaacaagaca 780
aagaaatact agaggcagaa attgaatcac accatcctag actggcttct gctgtacaag 840
accatgatca aattgtgaca tcaagaaaaa gtcaagaacc tgctttccac attgcaggag 900
atgcttgttt gcaaagaaaa atgaatgttg atgtgagtag tacgatatat aacaatgagg 960
tgctccatca accactttct gaagctcaaa ggaaatccaa aagcctaaaa attaatctca 1020
attatgccgg agatgctcta agagaaaata cattggtttc agaacatgca caaagagacc 1080
aacgtgaaac acagtgtcaa atgaaggaag ctgaacacat gtatcaaaac gaacaagata 1140
atgtgaacaa acacactgaa cagcaggagt ctctagatca gaaattattt caactacaaa 1200
gcaaaaatat gtggcttcaa cagcaattag ttcatgcaca taagaaagct gacaacaaaa 1260
gcaagataac aattgatatt cattttcttg agaggaaaat gcaacatcat ctcctaaaag 1320
agaaaaatga ggagatattt aattacaata accatttaaa aaaccgtata tatcaatatg 1380
aaaaagagaa agcagaaaca gaaaactcat gagagacaag cagtaagaaa cttcttttgg 1440
agaaacaaca gaccagatct ttactcacaa ctcatgctag gaggccagtc ctagcattac 1500
cttatgttga aaatcttacc aatagtctgt gtcaacagaa tacttatttt agaagaaaaa 1560
ttcatgattt cttcctgaag cctgggcgac agagcgagac tctgtctcaa aaaaaaaaaa 1620
aaaaaaagaa agaaagaaat gcctgtgctt acttcgcttc ccagg 1665

<210> 179
<211> 179
<212> PRT
<213> Homo sapiens

<400> 179
Ala Asn Phe Gln Ala Glu Pro Pro Glu Lys Pro Ser Ala Phe Glu Pro
 1   5   10   15
Ala Ile Glu Met Gln Lys Ser Val Pro Asn Lys Ala Leu Glu Leu Lys
            20   25   30
Asn Glu Gln Thr Leu Arg Ala Asp Gln Met Phe Pro Ser Glu Ser Lys
        35   40   45
Gln Lys Lys Val Glu Glu Asn Ser Trp Asp Ser Glu Ser Leu Arg Glu
    50   55   60

```
Thr Val Ser Gln Lys Asp Val Cys Val Pro Lys Ala Thr His Gln Lys
65                  70                  75                  80
Glu Met Asp Lys Ile Ser Gly Lys Leu Glu Asp Ser Thr Ser Leu Ser
                85                  90                  95
Lys Ile Leu Asp Thr Val His Ser Cys Glu Arg Ala Arg Glu Leu Gln
            100                 105                 110
Lys Asp His Cys Glu Gln Arg Thr Gly Lys Met Glu Gln Met Lys Lys
        115                 120                 125
Lys Phe Cys Val Leu Lys Lys Lys Leu Ser Glu Ala Lys Glu Ile Lys
    130                 135                 140
Ser Gln Leu Glu Asn Gln Lys Val Lys Trp Glu Gln Glu Leu Cys Ser
145                 150                 155                 160
Val Arg Phe Leu Thr Leu Met Lys Met Lys Ile Ile Ser Tyr Met Lys
                165                 170                 175
Ile Ala Cys
```


<210> 180
<211> 1681
<212> DNA
<213> Homo sapiens

<400> 180

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gatacagtca ttcttgtgaa agagcaaggg aacttcaaaa agatcactgt gaacaacgta 60
caggaaaaat ggaacaaatg aaaaagaagt tttgtgtact gaaaaagaaa ctgtcagaag 120
caaaagaaat aaaatcacag ttagagaacc aaaaagttaa atgggaacaa gagctctgca 180
gtgtgagatt gactttaaac caagaagaag agaagagaag aaatgccgat atattaaatg 240
aaaaaattag ggaagaatta ggaagaatcg aagagcagca taggaaagag ttagaagtga 300
aacaacaact tgaacaggct ctcagaatac aagatataga attgaagagt gtagaaagta 360
atttgaatca ggtttctcac actcatgaaa atgaaaatta tctcttacat gaaaattgca 420
tgttgaaaaa ggaaattgcc atgctaaaac tggaaatagc cacactgaaa caccaatacc 480
aggaaaagga aaataaatac tttgaggaca ttaagatttt aaaagaaaag aatgctgaac 540
ttcagatgac cctaaaactg aaagaggaat cattaactaa aagggcatct caatatagtg 600
ggcagcttaa agttctgata gctgagaaca caatgctcac ttctaaattg aaggaaaaac 660
aagacaaaga aatactagag gcagaaattg aatcacacca tcctagactg gcttctgctg 720
tacaagacca tgatcaaatt gtgacatcaa gaaaaagtca agaacctgct ttccacattg 780
caggagatgc ttgtttgcaa agaaaaatga atgttgatgt gagtagtacg atatataaca 840
atgaggtgct ccatcaacca ctttctgaag ctcaaaggaa atccaaaagc ctaaaaatta 900
atctcaatta tgccggagat gctctaagag aaaatacatt ggtttcagaa catgcacaaa 960
gagaccaacg tgaaacacag tgtcaaatga aggaagctga acacatgtat caaaacgaac 1020
aagataatgt gaacaaacac actgaacagc aggagtctct agatcagaaa ttatttcaac 1080
tacaaagcaa aaatatgtgg cttcaacagc aattagttca tgcacataag aaagctgaca 1140
acaaaagcaa gataacaatt gatattcatt ttcttgagag gaaaatgcaa catcatctcc 1200
taaaagagaa aaatgaggag atatttaatt acaataacca tttaaaaaac cgtatatatc 1260
aatatgaaaa agagaaagca gaaacagaaa actcatgaga gacaagcagt aagaaacttc 1320
ttttggagaa acaacagacc agatctttac tcacaactca tgctaggagg ccagtcctag 1380
cattacctta tgttgaaaaa tcttaccaat agtctgtgtc aacagaatac ttattttaga 1440
agaaaaattc atgatttctt cctgaagcct acagacataa aataacagtg tgaagaatta 1500
cttgttcacg aattgcataa aagctgccca ggatttccat ctaccctgga tgatgccgga 1560
gacatcattc aatccaacca gaatctcgct ctgtcactca ggctggagtg cagtgggcgc 1620
aatctcggct cactgcaact ctgcctccca ggttcacgcc attctctggc acagcctccc 1680
g                                                                  1681
```

<210> 181
<211> 432
<212> PRT
<213> Homo sapiens

<400> 181
Asp Thr Val His Ser Cys Glu Arg Ala Arg Glu Leu Gln Lys Asp His
1 5 10 15
Cys Glu Gln Arg Thr Gly Lys Met Glu Gln Met Lys Lys Lys Phe Cys
20 25 30
Val Leu Lys Lys Lys Leu Ser Glu Ala Lys Glu Ile Lys Ser Gln Leu
35 40 45
Glu Asn Gln Lys Val Lys Trp Glu Gln Glu Leu Cys Ser Val Arg Leu
50 55 60
Thr Leu Asn Gln Glu Glu Glu Lys Arg Arg Asn Ala Asp Ile Leu Asn
65 70 75 80
Glu Lys Ile Arg Glu Glu Leu Gly Arg Ile Glu Glu Gln His Arg Lys
85 90 95
Glu Leu Glu Val Lys Gln Gln Leu Glu Gln Ala Leu Arg Ile Gln Asp
100 105 110
Ile Glu Leu Lys Ser Val Glu Ser Asn Leu Asn Gln Val Ser His Thr
115 120 125
His Glu Asn Glu Asn Tyr Leu Leu His Glu Asn Cys Met Leu Lys Lys
130 135 140
Glu Ile Ala Met Leu Lys Leu Glu Ile Ala Thr Leu Lys His Gln Tyr
145 150 155 160
Gln Glu Lys Glu Asn Lys Tyr Phe Glu Asp Ile Lys Ile Leu Lys Glu
165 170 175
Lys Asn Ala Glu Leu Gln Met Thr Leu Lys Leu Lys Glu Glu Ser Leu
180 185 190
Thr Lys Arg Ala Ser Gln Tyr Ser Gly Gln Leu Lys Val Leu Ile Ala
195 200 205
Glu Asn Thr Met Leu Thr Ser Lys Leu Lys Glu Lys Gln Asp Lys Glu
210 215 220
Ile Leu Glu Ala Glu Ile Glu Ser His His Pro Arg Leu Ala Ser Ala
225 230 235 240
Val Gln Asp His Asp Gln Ile Val Thr Ser Arg Lys Ser Gln Glu Pro
245 250 255
Ala Phe His Ile Ala Gly Asp Ala Cys Leu Gln Arg Lys Met Asn Val
260 265 270
Asp Val Ser Ser Thr Ile Tyr Asn Asn Glu Val Leu His Gln Pro Leu
275 280 285
Ser Glu Ala Gln Arg Lys Ser Lys Ser Leu Lys Ile Asn Leu Asn Tyr
290 295 300
Ala Gly Asp Ala Leu Arg Glu Asn Thr Leu Val Ser Glu His Ala Gln
305 310 315 320
Arg Asp Gln Arg Glu Thr Gln Cys Gln Met Lys Glu Ala Glu His Met
325 330 335
Tyr Gln Asn Glu Gln Asp Asn Val Asn Lys His Thr Glu Gln Gln Glu
340 345 350
Ser Leu Asp Gln Lys Leu Phe Gln Leu Gln Ser Lys Asn Met Trp Leu
355 360 365
Gln Gln Gln Leu Val His Ala His Lys Lys Ala Asp Asn Lys Ser Lys
370 375 380

```
Ile Thr Ile Asp Ile His Phe Leu Glu Arg Lys Met Gln His His Leu
385                 390                 395                 400
Leu Lys Glu Lys Asn Glu Glu Ile Phe Asn Tyr Asn Asn His Leu Lys
                405                 410                 415
Asn Arg Ile Tyr Gln Tyr Glu Lys Glu Lys Ala Glu Thr Glu Asn Ser
            420                 425                 430
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<210> 182
<211> 511
<212> DNA
<213> Homo sapiens

<400> 182
gaagtttcat gaggtttagc ttttctgggc tggggagtgg agagaaagaa gttgcagggc 60
ttacaggaaa tcccagagcc tgaggttttc tcccagattt gagaactcta gattctgcat 120
cattatcttt gagtctatat tctcttgggc tgtaagaaga tgaggaatgt aataggtctg 180
ccccaagcct ttcatgcctt ctgtaccaag cttgtttcct tgtgcatcct tcccaggctc 240
tggctgcccc ttattggaga atgtgatttc caagacaatc aatccacaag tgtctaagac 300
tgaatacaaa gaacttcttc aagagttcat agacgacaat gccactacaa atgccataga 360
tgaattgaag gaatgttttc ttaaccaaac ggatgaaact ctgagcaatg ttgaggtgtt 420
tatgcaatta atatatgaca gcagtctttg tgatttattt taactttctg caagaccttt 480
ggctcacaga actgcagggt atggtgagaa a 511

<210> 183
<211> 260
<212> DNA
<213> Homo sapiens

<400> 183
cacctcgcgg ttcagctcct ctgtcttggt gaagaaccat tcctcggcat ccttgcggtt 60
cttctctgcc atcttctcat actggtcacg catctcgttc agaatgcggc tcaggtccac 120
gccaggtgca gcgtccatct ccacattgac atctccaccc acctggcctc tcagggcatt 180
catctcctcc tcgtggttct tcttcaggta ggccagctcc tccttcaggc tctcaatctg 240
catctccagg tcagctctgg 260

<210> 184
<211> 461
<212> DNA
<213> Homo sapiens

<400> 184
gtctgatggg agaccaaaga atttgcaagt ggatggtttg gtatcactgt aaataaaaag 60
agggcctttt ctagctgtat gactgttact tgaccttctt tgaaaagcat tcccaaaatg 120
ctctatttta gatagattaa cattaaccaa cataattttt tttagatcga gtcagcataa 180
atttctaagt cagcctctag tcgtggttca tctctttcac ctgcatttta tttggtgttt 240
gtctgaagaa aggaaagagg aaagcaaata cgaattgtac tatttgtacc aaatctttgg 300
gattcattgg caaataattt cagtgtggtg tattattaaa tagaaaaaaa aaattttgtt 360
tcctaggttg aaggtctaat tgataccgtt tgacttatga tgaccattta tgcactttca 420
aatgaatttg ctttcaaaat aaatgaagag cagacctcgg c 461

<210> 185
<211> 531
<212> DNA

<213> Homo sapiens

<400> 185
tctgatttta tttccttctc aaaaaaagtt atttacagaa ggtatatatc aacaatctga 60
caggcagtga acttgacatg attagctggc atgatttttt ctttttttc ccccaaacat 120
tgtttttgtg gccttgaatt ttaagacaaa tattctacac ggcatattgc acaggatgga 180
tggcaaaaaa aagtttaaaa acaaaaaccc ttaacggaac tgccttaaaa aggcagacgt 240
cctagtgcct gtcatgttat attaaacata catacacaca atctttttgc ttattataat 300
acagacttaa atgtacaaag atgttttcca ctttttttcaa tttttaaaca caacagctat 360
aaacctgaac acatatgcta tcatcatgcc ataagactaa aacaattata tttagcgaca 420
agtagaaagg attaaatagt caaatacaag aatgaaaaac gcagtacata gtgtcgcgaa 480
ctcaaatcgg catttagata gatccagtgg tttaaacggc acgtttttgc t 531

<210> 186
<211> 441
<212> DNA
<213> Homo sapiens

<400> 186
cattcctttc ctcgcgttgg ggtttctctg tgtcagcgag cctcggtaca ctgatttccg 60
atcaaaagaa tcatcatctt taccttgact tttcagggaa ttactgaact ttcttctcag 120
aagatagggc acagccattg ccttggcctc acttgaaggg tctgcatttg ggtcctctgg 180
tctcttgcca agtttcccaa ccactcgagg gagaaatatc gggaggtttg acttcctccg 240
gggctttccc gagggcttca ccgtgagccc tgcggccctc agggctgcaa tcctggattc 300
aatgtctgaa acctcgctct ctgcctgctg gacttctgag gccgtcactg ccactctgtc 360
ctccagctct gacagctcct catctgtggt cctgttgtac tggacggggt ccccagggtc 420
ctgggggctt ttttcctgtc t 441

<210> 187
<211> 371
<212> DNA
<213> Homo sapiens

<400> 187
aaaagtgaat gagtaactat tatattgttg gcaataataa gttgcaaaat catcaggctg 60
caggctgctg atggtgagag tgaactctgt cccagatcca ctgccgctga accttgatgg 120
gaccccagat tctaaactag acgccttatg gatcaggagc tttggggctt tccctggttt 180
ctgttgatac caggccaacc aactactaac actctgactg gcccggcaag tgatggtgac 240
tctgtctcct acagttgcag acagggtgga aggagactgg gtcatctgga tgtcacattt 300
ggcacctggg agccagagca gcaggagccc caggagctga gcggggaccc tcatgtccat 360
gctgagtcct g 371

<210> 188
<211> 226
<212> DNA
<213> Homo sapiens

<400> 188
ggtatataaa ttgagatgcc cccccaggcc agcaaatgtt ccttttttgtt caaagtctat 60
ttttattcct tgatattttt ctttttttttt tttttgtgga tggggacttg tgaatttttc 120
taaaggtgct atttaacatg ggaggagagc gtgtgcggct ccagcccagc ccgctgctca 180
ctttccaccc tctctccacc tgcctctggc ttctcaggac ctgccc 226

<210> 189

<211> 391
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 43, 112, 131, 156, 195, 208, 221, 317, 333, 367
<223> n = A,T,C or G

<400> 189
tgggtgaagt ttattctgtt ttcacatcta ggttgttggg ganagtgata gacaaagttc 60
tggattctgg gcatcgtcgg cgcatgcttg taatcctact tgggaggttg anacaggaga 120
cctcggccgc naccacgcta agggcgaatt ctgcanatat ccatcacact ggcggccgct 180
cgagcatgca tctanagggc ccaattcncc ctatagtgag ncgtattaca attcactggc 240
cgtcgtttta caacgtcgtg actgggaaaa ccctggcgtt acccaactta atcgccttgc 300
agcacatccc cctttcncca gctggcttaa tancgaagag gcccgcaccg atcgcccttc 360
ccaacanttg cgcagcctga atggcgaatg g 391

<210> 190
<211> 501
<212> DNA
<213> Homo sapiens

<400> 190
catcttggcc tttttgagct gtttccgctt cttctcatcc cggtcactgt caccctcatt 60
actggaggag ctggcagagg cgttgctgtc aaactcctct gccacatctt cctcctcttc 120
acctgggttg aatgactcat cggtttcttc tcctgagtca tcgctgctgt cattggcatt 180
ctcctcccgg atcttgcctt cctccttcat cctctccaag taggcatcat gctggtcctc 240
atcagagtca gcatattcat cgtagcttgg gttcatgccc tctttcaatc ctcggttttt 300
gatgttgagc tttttcgcgt tgacaaaatc aaacagtttc ccgtactcct ccctctcaat 360
gctgctgaag gtatactgag tgccctgctt ggtctcaatt tcaaagtcaa aggaacgagt 420
agtagtggta ccacgagcaa agttgacaaa ggagatctca tcgaagcgga tgtgcacagg 480
tggcttgtgg acgtagatga a 501

<210> 191
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 49
<223> n = A,T,C or G

<400> 191
ggaaaaactg tgaaaaatat atctgaattt attaagtaca gtataaaana gggttgtggc 60
aacagaaagt aaaaactaac atggattgct ataaatatgc tgaagcctag ttgttcaaat 120
gatacaattc tctcatgcta ctctaaagtt tataaagaaa aaggatttac actttacaca 180
ctgtacacaa aaggaatacc ttctgagagc cagggagtgg ggaaagggga aggagacttg 240
a 241

<210> 192
<211> 271
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<222> 6, 17, 23, 26, 70, 227, 245
<223> n = A,T,C or G

<400> 192
tggtcntgga ttcacanata aantanatcg actaaaactg gcagaaattg tgaagcaggt 60
gatagaagan caaaccacgt cccacgaatc ccaataatga cagcttcaga ctttgctttt 120
ttaacaattt gaaaaattat tctttaatgt ataaagtaat tttatgtaaa ttaataaatc 180
ataatttcat ttccacattg attaaagctg ctgtatagat ttagggngca ggacttaata 240
atagnggaaa tgaaattatg atttattaat c 271

<210> 193
<211> 351
<212> DNA
<213> Homo sapiens

<400> 193
agtcgaggcg ctgatcccta aaatggcgaa catgtgtttt catcatttca gccaaagtcc 60
taacttcctg tgcctttcct atcacctcga gaagtaatta tcagttggtt tggatttttg 120
gaccaccgtt cagtcatttt gggttgccgt gctcccaaaa cattttaaat gaaagtattg 180
gcattcaaaa agacagcaga caaaatgaaa gaaaatgaga gcagaaagta agcatttcca 240
gcctatctaa tttctttagt tttctatttg cctccagtgc agtccatttc ctaatgtata 300
ccagcctact gtactattta aaatgctcaa tttcagcacc gatggacctg c 351

<210> 194
<211> 311
<212> DNA
<213> Homo sapiens

<400> 194
ctgagacaca gaggcccact gcgaggggga cagtggcggt gggactgacc tgctgacagt 60
caccctccct ctgctgggat gaggtccagg agccaactaa aacaatggca gaggagacat 120
ctctggtgtt cccaccaccc tagatgaaaa tccacagcac agacctctac cgtgtttctc 180
ttccatccct aaaccacttc cttaaaatgt ttggatttgc aaagccaatt tggggcctgt 240
ggagcctggg gttggatagg gccatggctg gtcccccacc atacctcccc tccacatcac 300
tgacacagac c 311

<210> 195
<211> 381
<212> DNA
<213> Homo sapiens

<400> 195
tgtcagagtg gcactggtag aagttccagg aaccctgaac tgtaagggtt cttcatcagt 60
gccaacagga tgacatgaaa tgatgtactc agaagtgtcc tggaatgggg cccatgagat 120
ggttgtctga gagagagctt cttgtcctgt ctttttcctt ccaatcaggg gctcgctctt 180
ctgattattc ttcagggcaa tgacataaat tgtatattcg gttcccggtt ccaggccagt 240
aatagtagcc tctgtgacac cagggcgggg ccgagggacc acttctctgg gaggagaccc 300
aggcttctca tacttgatga tgtagccggt aatcctggca cgtggcggct gccatgatac 360
cagcagggaa ttgggtgtgg t 381

<210> 196
<211> 401
<212> DNA
<213> Homo sapiens

<400> 196
cacaaacaag aggagcacca gacctcctct tggcttcgag atggcttcgc cacaccaaga 60
gcccaaacct ggagacctga ttgagatttt ccgccttggc tatgagcact gggccctgta 120
tataggagat ggctacgtga tccatctggc tcctccaagt gagtaccccg ggctggctc 180
ctccagtgtc ttctcagtcc tgagcaacag tgcagaggtg aaacgggagc gcctggaaga 240
tgtggtggga ggctgttgct atcgggtcaa caacagcttg gaccatgagt accaaccacg 300
gcccgtggag gtgatcacca gttctgcgaa ggagatggtt ggtcagaaga tgaagtacag 360
tattgtgagc aggaactgtg agcactttgt cacccagacc t 401

<210> 197
<211> 471
<212> DNA
<213> Homo sapiens

<400> 197
ctgtaatgat gtgagcaggg agccttcctc cctgggccac ctgcagagag ctttcccacc 60
aactttgtac cttgattgcc ttacaaagtt atttgtttac aaacagcgac catataaaag 120
cctcctgccc caaagcttgt gggcacatgg gcacatacag actcacatac agacacacac 180
atatatgtac agacatgtac tctcacacac acaggcacca gcatacacac gtttttctag 240
gtacagctcc caggaacagc taggtgggaa agtcccatca ctgagggagc ctaaccatgt 300
ccctgaacaa aaattgggca ctcatctatt ccttttctct tgtgtcccta ctcattgaaa 360
ccaaactctg gaaaggaccc aatgtaccag tatttatacc tctagtgaag cacagagaga 420
ggaagagagc tgcttaaact cacacaacaa tgaactgcag acacagacct g 471

<210> 198
<211> 201
<212> DNA
<213> Homo sapiens

<400> 198
ggtccattga ggctctgtcg gccatgccca cagttcgaag ctttgccaac gaggagggcg 60
aagcccagaa gtttagggaa aagctgcaag aaataaagac actcaaccag aaggaggctg 120
tggcctatgc agtcaactcc tggaccacta gtatttcagg tatgctgctg aaagtgggaa 180
tcctctacat tggtgggcag a 201

<210> 199
<211> 551
<212> DNA
<213> Homo sapiens

<400> 199
tctggcacag atcttcaccc acacggcggt ccacgtgctg atcatcttcc gggtctcacc 60
gggcctggaa cacaccatct tccccatgag cccggtgccc agtctggtga cttccatctt 120
ggcccctggc cttatgtccc agttatgacc cctgacttca actctggctc ttaccctgta 180
actccagtcc atctctgaca tttttaacac ccggccttgt gaccgtggac atagctcctg 240
acctcgattc ccatcttgag cccagtgtta gtccatgaga tcatgacctg actcctggtc 300
tccaaccttg tgatcctaat tctgggacct caatcctagc ctctgaactt gggaccctgg 360
agctcctgac cttagtcctg accgctaccc ttgattctga cctttgatcc tgtaacttag 420
gggtggcccc tgaccttatt actgtcattt agctccttga ccttgccact tcaatcctgg 480

ctttatgacc tcctactctc aattttaact ttaaccaaat gaccaaattt gtgacactaa 540
atgaccacaa t 551

<210> 200
<211> 211
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 8, 36, 40, 78, 165, 170, 171, 173, 203, 207, 208
<223> n = A,T,C or G

<400> 200
cagctcancg ggcgacatgc ccctacaagt tggcanaagn ggctgccact gctgggtttg 60
tgtaagagag gctgctgnca ccattacctg cagaaacctt ctcatagggg ctacgatcgg 120
tactgctagg gggcacatag cgcccatggg tgtggtaggt ggggnactcn ntnataggat 180
ggtaggtatc ccgggctgga aanatgnnca g 211

<210> 201
<211> 111
<212> DNA
<213> Homo sapiens

<400> 201
ccagtgaaag gaaacaaaac tggcagtttg tccatttgaa tatcagacct agtttcttct 60
taatttccac actatttctc ccatattcct taaacttctt ggcatccacc t 111

<210> 202
<211> 331
<212> DNA
<213> Homo sapiens

<400> 202
tgaaaataca gaataccagg tggtcccaaa tgtttgaagt tctttgaaca gaaagagaga 60
ggagagagag agagaggaaa attccctaac ccttggttta aagacaatat tcatttattg 120
ctcaaatgat gcttttaagg gaggacagtg gaataaaata aacttttttt ttctccctac 180
aatacataga agggttatca aaccactcaa gtttcaaaat ctttccaggg tccaatatca 240
ctttttttct ttcggttcaa tgaaaagcta aatgtaataa tactaattat agataaaatt 300
ttattttact ttttaaaaat ttgtccagac c 331

<210> 203
<211> 491
<212> DNA
<213> Homo sapiens

<400> 203
agtcacccag tctacttagt acctggttgc tgcctctgac cttttcagct tgataccctg 60
ggctttagtg taaccaataa atctgtagtg accttacctg tattccctgt gctatcctgt 120
gggaaggtag gaatgggcta agtatgatga atgtataggt tagggatctt ttggttttaa 180
atcacagaaa acctaattca aactggctta aaataaaaag gatttattgg ttcatgtaac 240
tagaaagtcc ataggtagtg ctggctccag gtgaagactt gacccagtag ttcagtatgt 300
ctctaaatac cggactgact ttttttctcac tgttgcatct tctgtaggac catttaagtc 360
tgggccactt aatggctgcc agcattccta agattacact tttccccatt tatgtccaat 420

cagaaaaaga aggcatcttt gtaccagaaa tctcagcaaa agccctaata ttcacactga 480
ttaggacctg c 491

<210> 204
<211> 361
<212> DNA
<213> Homo sapiens

<400> 204
tcccttcctc ccccatgtga taaatgggtc cagggctgat caaagaactc tgactgcaga 60
actgccgctc tcagtggaca gggcatctgt tatcctgaga cctgtggcag acacgtcttg 120
ttttcatttg atttttgtta agagtgcagt attgcagagt ctagaggaat ttttgtttcc 180
ttgattaaca tgattttcct ggttgttaca tccagggcat ggcagtggcc tcagccttaa 240
acttttgttc ctactcccac cctcagcgaa ctgggcagca cggggagggt ttggctaccc 300
ctgcccatcc ctgagccagg taccaccatt gtaaggaaac actttcagaa attcagacct 360
c 361

<210> 205
<211> 471
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 2, 3
<223> n = A,T,C or G

<400> 205
cnngtacagt tcttcctgga tggccgacac agatcctggg gaaaggcaat cctggcactg 60
ctctgaaacc agagctcctc ctccctcccc gggcagggtg gagctgagaa gggctgctct 120
agcgttggga ctccacctcc atacacctga tattttgata gggcaggtcc ctgctatggg 180
ccactgttct gggcagtata gtatgcttga cagcatcctt ggcatctatc caccagatcc 240
cagagcaccc gctactagct gtgacaacat cctccaaaca ttgcaaaatt tcccctggga 300
ggcaagattg cctcagatgg gagaatcacg ctctagggaa atctgctggt atgagaaccc 360
caactcccca ctccactgag cctccagatg gcgagcaggc tgcagctcca gcacagacac 420
gaagctccct ccagccactg acggtccatg gctggggtta cccaggacct c 471

<210> 206
<211> 261
<212> DNA
<213> Homo sapiens

<400> 206
tagagtattt agagtcctga gataacaagg aatccaggca tcctttagac agtcttctgt 60
tgtcctttct tcccaatcag agatttgtgg atgtgtggaa tgacaccacc accagcaatt 120
gtagccttga tgagagaatc caattcttca tctccacgaa tagcaagttg caagtgacga 180
ggggtaatac gctttacctt taagtctttt gatgcatttc ctgccagttc aagtacctct 240
gcggtgaggt actccaggat g 261

<210> 207
<211> 361
<212> DNA
<213> Homo sapiens

<400> 207
gctctccggg agcttgaaga agaaactggc tacaaagggg acattgccga atgttctcca 60
gcggtctgta tggacccagg cttgtcaaac tgtactatac acatcgtgac agtcaccatt 120
aacggagatg atgccgaaaa cgcaaggccg aagccaaagc caggggatgg agagtttgtg 180
gaagtcattt ctttacccaa gaatgacctg ctgcagagac ttgatgctct ggtagctgaa 240
gaacatctca cagtggacgc cagggtctat tcctacgctc tagcactgaa acatgcaaat 300
gcaaagccat ttgaagtgcc cttcttgaaa ttttaagccc aaatatgaca ctggacctgc 360
c 361

<210> 208
<211> 381
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 10, 27, 37, 46, 75, 95, 102, 137, 143, 202, 234, 278, 310,
351
<223> n = A,T,C or G

<400> 208
agaggagatn tttgccatgc ctgaatnctt tcctatncca ccctancact taacatatta 60
cttagtctgc tttgntaaaa gcaagtatta ccttnaactt gnctcttact ctttgccctt 120
tagctaacta ataaagnttg atntaggcat tattatataa ttctgagtca ttcatggtat 180
ctctcatgtt tgatgtattt tncaaactaa gatctatgat agtttttttt ccanagttcc 240
attaaatcat ttatttcctt tactttctca cctctgtnga aacatttaga aactggattt 300
gggaacccan ttttggaaaa ccagattcat agtcatgaaa atggaaactt ncatattctg 360
tttttgaaaa gatgtggacc t 381

<210> 209
<211> 231
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 83
<223> n = A,T,C or G

<400> 209
gtggagagca agtgatttat taaagcaaga cgttgaaacc tttacattct gcagtgaaga 60
tcagggtgtc attgaaagac agnggaaacc aggatgaaag tttttacatg tcacacacta 120
catttcttca atattttcac caggacttcc gcaatgaggc ttcgtttctg aagggacatc 180
tgatccgtgc atctcttcac tcctaacttg gctgcaacag cttccacctg c 231

<210> 210
<211> 371
<212> DNA
<213> Homo sapiens

<400> 210
tccatcctgg ttttgcagag atcaggttgt tgacagttcc tggttgaccc acagctaccc 60
atgtcagtta tctccactaa catatccaag aatctttgta ggacaatttc tccacctgca 120
aggtttttta ggtagaactc ttcttttaag gcaattagcc cattgccaaa aggttttact 180

gtcttaaagc tgtctttctg agatctaatt ccaaggactt ctccacagct aagtgagatg 240
cctcacacca ttaggtgatg ctttggacag aacagagtat tttcatcttg tgtttaaagc 300
aattccttgg cttcggctcc tcaccacttt ctatgccagt ctcccattta tgtccctagt 360
aatgcctatg c 371

<210> 211
<211> 471
<212> DNA
<213> Homo sapiens

<400> 211
tttattttaa aagaaaaaaa ttaaaataga gccaacaaat gcaattaaga aaaaaaaagt 60
attgagacac aaggggacct acatgttctg gtctaagaag catgcaagta ttacaaagca 120
ttccagatac agtatgacag aggaacagtg aacaagcatt ggaacgatgc tctttctttc 180
agaaacggga agtctaacag ttatgttttc acaatggtag tgattaaacc atctttattt 240
ttaaggaatt ttataggaag aattttagca ccatcattaa aggaaaaata ataataccttt 300
tttagccctg cctatctcca gtcttggaat aataacagaa gcatagcacc tttcagtatc 360
taaaatataa acaagaatag taagtccatc ccagcttcta gagatgaggt agctcatgct 420
aagaaatgtt gggtcatttt tcctatgaaa gttcaaaggc caaatggtca c 471

<210> 212
<211> 401
<212> DNA
<213> Homo sapiens

<400> 212
tggcctgtct ccttcacata gtccatatca ccacaaatca cacaacaaaa gggagaggat 60
atattttggg ttcaaaaaaa gtaaaaagat aatgtagctg catttctttg gttattttgg 120
gccccaaata tttcctcatc tttttgttgt tgtcatggat ggtggtgaca tggacttgtt 180
tatagaggac aggtcagctc tctggctcgg tgatctacat tctgaagttg tctgaaaatg 240
tcttcatgat taaattcagc ctaaacgttt tgccgggaac actgcagaga caatgctgtg 300
agtttccaac ctcagcccat ctgcgggcag agaaggtcta gtttgtccat caccattatg 360
atatcaggac tggttacttg gttaaggagg ggtctacctc g 401

<210> 213
<211> 461
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 239, 290, 358, 359, 391, 393
<223> n = A,T,C or G

<400> 213
tgtgaagcat acataaataa atgaagtaag ccatactgat ttaatttatt ggatgttatt 60
ttccctaaga cctgaaaatg aacatagtat gctagttatt tttcagtgtt agccttttac 120
tttcctcaca caatttggaa tcatataata taggtacttt gtccctgatt aaataatgtg 180
acggatagaa tgcatcaagt gtttattatg aaaagagtgg aaaagtatat agcttttanc 240
aaaaggtgtt tgcccattct aagaaatgag cgaatatata gaaatagtgn gggcatttct 300
tcctgttagg tggagtgtat gtgttgacat ttctccccat ctcttcccac tctgtttnnt 360
ccccattatt tgaataaagt gactgctgaa nangactttg aatccttatc cacttaattt 420
aatgtttaaa gaaaaaccta taatggaaag tgagactcct t 461

<210> 214
<211> 181
<212> DNA
<213> Homo sapiens

<400> 214
cctgagcttc tactcctttc ccttaagatt cctccaaagc accagctcca taaaatcctt 60
cagctcccca gacccacacc aagaacccca catgttaatt ggatcagcca aatctacaag 120
cagataagtc ctaaggagaa tgccgaagcg tttttcttct tcctcaagcc tagcatgaga 180
c 181

<210> 215
<211> 581
<212> DNA
<213> Homo sapiens

<400> 215
ctgctttaag aatggttttc cacctttcc ccctaatctc taccaatcag acacatttta 60
ttatttaaat ctgcacctct ctctatttta tttgccaggg gcacgatgtg acatatctgc 120
agtcccagca cagtgggaca aaaagaattt agaccccaaa agtgtcctcg gcatggatct 180
tgaacagaac cagtatctgt catggaactg aacattcatc gatggtctcc atgtattcat 240
ttattcactt gttcattcaa gtatttattg aatacctgcc tcaagctaga gagaaaagag 300
agtgcgcttt ggaaatttat tccagttttc agcctacagc agattatcag ctcggtgact 360
tttctttctg ccaccattta ggtgatggtg tttgattcag agatggctga atttctattc 420
ttagcttatt gtgactgttt cagatctagt ttgggaacag attagaggcc attgtcctct 480
gtcctgatca ggtggcctgg ctgtttcttt ggatccctct gtcccagagc cacccagaac 540
cctgactctt gagaatcaag aaaacaccca gaaaggacct c 581

<210> 216
<211> 281
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 37, 38, 164, 176, 254
<223> n = A,T,C or G

<400> 216
ccgatgtcct gcttctgtgg accaggggct cctctgnngg tggcctcaac cacggctgag 60
atccctagaa gtccaggagc tgtggggaag agaagcactt agggccagcc agccgggcac 120
ccccacttgc gccccgaccc acgctcacgc accagacctg cccnggcggt cgctcnaaag 180
ggcgaattct gcagatatcc atcacactgg cggacgctcg agcatgcatc tagagggccc 240
aattcaccct atantgagtc gtattacaat tcactggccg t 281

<210> 217
<211> 356
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 33, 322
<223> n = A,T,C or G

<400> 217
atagcaggtt tcaacaattg tcttgtagtt tgnagtaaaa agacataaga aagagaaggt 60
gtggtttgca gcaatccgta gttggtttct caccataccc tgcagttctg tgagccaaag 120
gtcttgcaga aagttaaaat aaatcacaaa gactgctgtc atatattaat tgcataaaca 180
cctcaacatt gctcagagtt tcatccgttt ggttaagaaa acattccttc aattcatcta 240
tggcatttgt agtggcattg tcgtctatga actcttgaag aagttctttg tattcagtct 300
tagacacttg tggattgatt gncttggaaa tcacattctc caataaggga cctcgg 356

<210> 218
<211> 321
<212> DNA
<213> Homo sapiens

<400> 218
ttgtccatcg ggagaaaggt gtttgtcagt tgtttcataa accagattga ggaggacaaa 60
ctgctctgcc aatttctgga tttctttatt ttcagcaaac actttcttta aagcttgact 120
gtgtgggcac tcatccaagt gatgaataat catcaagggt ttgttgcttg tcttggattt 180
atatagagct tcttcatatg tctgagtcca gatgagttgg tcaccccaac ctctggagag 240
ggtctggggc agtttgggtc gagagtcctt tgtgtccttt ttggctccag gtttgactgt 300
ggtatctctg gacctgcctg g 321

<210> 219
<211> 271
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 41
<223> n = A,T,C or G

<400> 219
ccggttaggt ccacgcgggg gcagtggagg cacaggctca nggtggccgg gctacctggc 60
accctatggc ttacaaagta gagttggccc agtttccttc cacctgaggg gagcactctg 120
actcctaaca gtcttccttg ccctgccatc atctggggtg gctggctgtc aagaaaggcc 180
gggcatgctt tctaaacaca gccacaggag gcttgtaggg catcttccag gtggggaaac 240
agtcttagat aagtaaggtg acttgtctaa g 271

<210> 220
<211> 351
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 32, 43
<223> n = A,T,C or G

<400> 220
gtcctacgac gaggaccagc ttttcttctt cnacttttcc canaacactc gggtgcctcg 60
cctgcccgaa tttgctgact gggctcagga acagggagat gctcctgcca ttttatttga 120
caaagagttc tgcgagtgga tgatccagca aatagggcca aaacttgatg ggaaaatccc 180
ggtgtccaga gggtttccta tcgctgaagt gttcacgctg aagcccctgg agtttggcaa 240

gcccaacact ttggtctgtt ttgtcagtaa tctcttccca cccatgctga cagtgaactg 300
gtagcatcat tccgtccctg tggaaggatt tgggcctact tttgtctcag a 351

<210> 221
<211> 371
<212> DNA
<213> Homo sapiens

<400> 221
gtctgcagaa gcgtgtctga ggtgtccggt ggaggtggca gccgagctct gggactaatc 60
accgtgctgg ggacggcacc gcgtcaggat gcaggcagat ccctgcagaa gtgtctaaaa 120
ttcacactcc tcttctggag ggacgtcgat ggtattagga tagaagcacc aggggacccc 180
acgaacggtg tcgtcgaaac agcagccctt atttgcacac tgggagggcg tgacaccagg 240
aaaaccacaa ttctgtcttt cacgggggggc cactgtacac gtctctgtct gggcctcggc 300
cagggtgccg agggccagca tggacaccag gaccagggcg cagatcacct tgttctccat 360
ggtggacctc g 371

<210> 222
<211> 471
<212> DNA
<213> Homo sapiens

<400> 222
gtccatgttc catcattaat gttccaacat caccagggac acaaagctgc aaaaatgaga 60
agggaaataa ggttagagaa aggatccggg caatcttaag gactgaggaa gacatgttcc 120
ccaacccttg aactcacaaa ccctgaagct caaggattgc atccttcctc caaatctcac 180
tcaacataat aagtgcagaa caacatgcca aagcactgta tgaagcacta gggacaaaga 240
caaggtcaaa atccttgtaa ccaaatttaa tggtattgta atgcagtgtt aacacaggac 300
agtaacagaa cacccaagaa ccaaacagaa gagggtaggg ataagcataa atgaagtaac 360
atgaaataaa cttccaaatg gaaaacttgt ccataccccc agggcaagtc aactacagtc 420
tcccaaagga cataaattcc acttagggca cactagacag aaaacaatat t 471

<210> 223
<211> 411
<212> DNA
<213> Homo sapiens

<400> 223
agttgctcta caatgacaca caaatcccgt taaataaatt ataaacaagg gtcaattcaa 60
atttgaagta atgttttagt aaggagagat tagaagacaa caggcatagc aaatgacata 120
agctaccgat taactaatcg gaacatgtaa aacagttaca aaaataaacg aactctcctc 180
ttgtcctaca atgaaagccc tcatgtgcag tagagatgca gtttcatcaa agaacaaaca 240
tccttgcaaa tgggtgtgac gcggttccag atgtggattt ggcaaaacct catttaagta 300
aaaggttagc agagcaaagt gcggtgcttt agctgctgct tgtgccgctg tggcgtcggg 360
gaggctcctg cctgagcttc cttccccagc tttgctgcct gagaggaacc a 411

<210> 224
<211> 321
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 31

<223> n = A,T,C or G

<400> 224
ggtctgaagt ttgataacaa agaaatatat ntaagacaaa aatagacaag agttaacaat 60
aaaaacacaa ctatctgttg acataacata tggaaacttt ttgtcagaaa gctacatctt 120
cttaatctga ttgtccaaat cattaaaata tggatgattc agtgccattt tgccagaaat 180
tcgtttggct ggatcataga ttaacatttt cgagagcaaa tccaagccat tttcatccaa 240
gtttttgaca tgggatgcta ggcttcctgg tttccatttg ggaaatgtat tcttatagtc 300
ctgtaaagat tccacttctg g 321

<210> 225
<211> 251
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 34
<223> n = A,T,C or G

<400> 225
atgtctgggg aaagagttca ttggcaaaag tgtnctccca agaatggttt acaccaagca 60
gagaggacat gtcactgaat ggggaaaggg aacccccgta tccacagtca ctgtaagcat 120
ccagtaggca ggaagatggc tttgggcagt ggctggatga aagcagattt gagataccca 180
gctccggaac gaggtcatct tctacaggtt cttccttcac tgagacaatg aattcagggt 240
gatcattctc t 251

<210> 226
<211> 331
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 26, 34, 35, 36, 37, 39
<223> n = A,T,C or G

<400> 226
gttaggtccc aggccccccg ccaagnggtt accnnnntna ccactcctga cccaaaaatc 60
aggcatggca ttaaaacgtt gcaaattcct ttactgttat ccccccccacc accaggacca 120
tgtagggtgc agtctttact ccctaacccg tttcccgaaa aaggtgctac ctcctttcca 180
gacagatgag agagggcagg acttcaggct ggatccacca ctgggctctc cctcccccag 240
cctggagcac gggaggggag gtgacggctg gtgactgatg gatgggtagt gggctgagaa 300
gaggggacta ggaagggcta ttccaggctc a 331

<210> 227
<211> 391
<212> DNA
<213> Homo sapiens

<400> 227
aggtctgccc ttgaagtata ggaaggaatc atagttggag gacttctgca ttatttgttg 60
gctgaagcta gaagtgcaac cccctcctga tttctgcagc aagatgaact gccttatccc 120
cagcccgcag gaatgttcat atctgagcaa tcaatgggca ctgtgttcaa ccacgccatt 180

ttcaagattg gctccttaaa ccacccacaa ggcaccagct ctgggagaag ctgcagggag 240
aagagaacaa agccctcgct gtgatcagga tgggtgtctc atacctttc tctggggtca 300
ttccaggtat gagacagagt tgaacctgcg catgagcgtg gaggccgaca tcaacggcct 360
gcgcagggtg ctggatgagc tgaccctgga c 391

<210> 228
<211> 391
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 35
<223> n = A,T,C or G

<400> 228
gttgtccata gccacctcct gggatagaag ctttntagtt catagttcga ttagtgtgtc 60
cttaggacat aggtccagcc ctacagatta gctgggtgaa gaaggcaagt gtctcgacag 120
ggcttagtct ccaccctcag gcatggaacc attcagggtg aagcctggga tgtgggcaca 180
ggagactcag gctgatataa aaataacaaa atcagtaata aaaaaattat aaaacctgtt 240
gcttgtctga atagatttga gcaacagtct tgcttttgtt aaaatcctgg agccgttaag 300
tcctgaatat tcttctggac atcattgctg gctggagaaa ggagccccag gcccggctcg 360
gctgacatct gtcaggtttg gaagtctcat c 391

<210> 229
<211> 341
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 202
<223> n = A,T,C or G

<400> 229
gtccatggct tctcacccag acagtctttc tgggcaactt ggggaagccc ctgttctgct 60
caagtctcac cccatggaag aggtggggga agggggcctt ggtttttcag gaagacgggt 120
tggagagcac gagtcactac aaagcagtaa aagtgaatgg tgtctccagg ggctgggtcc 180
agaacaccgc ggagagcccc anccataaag gtgtgttccg cctctggcct gcaggaatct 240
ctttgaatct ctttgattgg tggctccaag agcaatggga agtcaacagc caggaggctg 300
gactgggttc cctgggaccc cgaggtccca gaggctgctg g 341

<210> 230
<211> 511
<212> DNA
<213> Homo sapiens

<400> 230
gtccaagcca aggaaaccat tcccttacag gagacctccc tgtacacaca ggaccgcctg 60
gggctaaagg aaatggacaa tgcaggacag ctagtgtttc tggctacaga aggggaccat 120
cttcagttgt ctgaagaatg gttttatgcc cacatcatac cattccttgg atgaaacccg 180
tatagttcac aatagagctc agggagcccc taactcttcc aaaccacatg ggagacagtt 240
tccttcatgc ccaagcctga gctcagatcc agcttgcaac taatccttct atcatctaac 300
atgccctact tggaaagatc taagatctga atcttatcct ttgccatctt ctgttaccat 360

atggtgttga atgcaagttt aattaccatg gagattgttt tacaaacttt tgatgtggtc 420
aagttcagtt ttagaaaagg gagtctgttc cagatcagtg ccagaactgt gcccaggccc 480
aaaggagaca actaactaaa gtagtgagat a 511

<210> 231
<211> 311
<212> DNA
<213> Homo sapiens

<400> 231
ggtccaagta agctgtgggc aggcaagccc ttcggtcacc tgttggctac acagacccct 60
cccctcgtgt cagctcaggc agctcgaggc ccccgaccaa cacttgcagg ggtccctgct 120
agttagcgcc ccaccgccgt ggagttcgta ccgcttcctt agaacttcta cagaagccaa 180
gctccctgga gccctgttgg cagctctagc tttgcagtcg tgtaattggc ccaagtcatt 240
gtttttctcg cctcactttc caccaagtgt ctagagtcat gtgagcctcg tgtcatctcc 300
ggggtggacc t 311

<210> 232
<211> 351
<212> DNA
<213> Homo sapiens

<400> 232
tcgtttagct aataatccct tccttgatga tacactccaa cttcttgttt ttctttattt 60
ctaaaaagcg gttctgtaac tctcaatcca gagatgttaa aaatgtttct aggcacggta 120
ttagtaaatc aagtaaattt catgtcctct taaaggacaa acttccagag atttgaatat 180
aaatttttat atgtgttatt gattgtcgtg taacaaatgg cccccacaaa ttagtagctt 240
aaaatagcat ttatgatgtc actgttttct ttgccttttc attaatgttc tgtacagacc 300
tatgtaaaca acttttgtat atgcatatag gatagctttt ttgagggtat a 351

<210> 233
<211> 511
<212> DNA
<213> Homo sapiens

<400> 233
aggtctggat gtaaggatgg atgctctcta tacatgctgg gttggggatg ctgggactgc 60
acagccaccc ccagtatgcc gctccaggac tctgggacta gggcgccaaa gtgtgcaaat 120
gaaaatacag gatacccagg gaactttgaa tttcagattg tgaaaagaaa acaaatcttg 180
agactccaca atcaccaagc taaaggaaaa agtcaagctg ggaactgctt agggcaaagc 240
tgcctcccat tctattcaca gtcatccccc tgaggctcac ctgcatagct gattgcttcc 300
tttcccctat cgcttctgta aaaatgcaga ctcactgagc cagactaaat tgtgtgttca 360
gtggaaggct gatcaagaac tcaaaagaat gcaacctttt gtctcttatc tactacaacc 420
aggaagcccc cacttaaggg ttgtcccacc ttactggact gaaccaaggt acatcttaca 480
cctactgatt gatgtctcat gtccccctaa g 511

<210> 234
<211> 221
<212> DNA
<213> Homo sapiens

<400> 234
caggtccagc gaaggggctt cataggctac accaagcatg tccacataac cgaggaagct 60
ctctccatca gcatagcctc cgatgaccat ggtgttccac aaagggttca tcttcgagcg 120

```
ccggctgtac atggccctgg tcagccatga atgaatagct ctaggactat agctgtgtcc 180
atctcccaga agctcctcat caatcaccat ctggccgaga c                     221
```

<210> 235
<211> 381
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 33
<223> n = A,T,C or G

<400> 235

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ggtccaagaa agggacatct atgtgaaagt ganactgaga cagtgctggt cacaggtcat 60
gctgcagaat aatacattcc caggcactgt cacgtggggg acccaagagg ccccaggagt 120
gacctataac ctctccagaa agaccactct gtgtggcatc acagtccaca cagtttaagg 180
aaatatttag acttaacaat cagacaccag ctcttactca cacttacact cacagcccac 240
acacaagtgt gcaaacatac acacacatat atatttcctg atacattcat ggaatatcag 300
agccctgccc tgaagtcgtt agtgtctctg ctccccaaac cgctgctccc acattggcta 360
agctccctca agagacctca g                                           381
```

<210> 236
<211> 441
<212> DNA
<213> Homo sapiens

<400> 236

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aggtcctgtt gccccttttct tttgcccaac ttcgccattt gggaattgga atatttaccc 60
aacacctgta ctgcattgaa tattggaagc aaataacttg gctttgatct tataggctca 120
cagatggagg aacgtacctt gaagttcaga tgagatttcg gacttttgag ttgatgctga 180
aacagcttga gatttttggg gactactgag agatgataat tgtattgtgc aatatgagaa 240
ggacatgaga tttggtgggc ataggtgtga aatgacattg tttggatgtg tttaccctcc 300
aaatctcttg ttgaatgtga tcttaaacgt tggtggtggg cctagtggaa ggtgttgaat 360
catgggggtg gactcttcat aatttgctta gctccatccc cttggtgatg agcaagtcct 420
tgctctgttg tgtcacatga g                                           441
```

<210> 237
<211> 281
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 81, 90, 194, 209, 210, 211, 219, 233
<223> n = A,T,C or G

<400> 237

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tcctaaaaaa ttagctgacc ttgttaaaaa tgttggcgtg agcagtatat tattacctat 60
cttttttttat tgtgtgtgtg ngtgtgtgtn ttaaactaat tggctgaaat atctgcctgt 120
ttccctcttt acatttttct tgtttctttc cttatttatc tttgtccatc ttgagatcta 180
ctgtaaagtg aatnttttaa tgaaaacann nccaagttnt actctcactg ggnttgggac 240
atcagatgta attgagaggc caacaggtaa gtcttcatgt c                     281
```

<210> 238
<211> 141
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 30, 85
<223> n = A,T,C or G

<400> 238
gtctgcctcc tcctactgtt tccctctatn aaaaagcctc cttggcgcag gttccctgag 60
ctgtgggatt ctgcactggt gcttnggatt ccctgatatg ttccttcaaa tccactgaga 120
attaaataaa catcgctaaa g 141

<210> 239
<211> 501
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 29, 30, 65, 86, 471, 489
<223> n = A,T,C or G

<400> 239
aacaatctaa acaaatccct cggttctann atacaatgga ttccccatat tggaaggact 60
ctgangcttt attcccccac tatgcntatc ttatcatttt attattatac acacatccat 120
cctaaactat actaaagccc ttttcccatg catggatgga aatggaagat tttttttaa 180
cttgttctag aagtcttaat atgggctgtt gccatgaagg cttgcagaat tgagtccatt 240
ttctagctgc ctttattcac atagtgatgg ggtactaaaa gtactgggtt gactcagaga 300
gtcgctgtca ttctgtcatt gctgctactc taacactgag caacactctc ccagtggcag 360
atcccctgta tcattccaag aggagcattc atccctttgc tctaatgatc aggaatgatg 420
cttattagaa aacaaactgc ttgacccagg aacaagtggc ttagcttaag naaacttggc 480
tttgctcana tccctgatcc t 501

<210> 240
<211> 451
<212> DNA
<213> Homo sapiens

<400> 240
tgtcctgaaa ggccattact aatagaaaca cagcctttcc aatcctctgg aacatattct 60
gtctgggttt ttaatgtctg tggaaaaaaa ctaaacaagt ctctgtctca gttaagagaa 120
atctattggt ctgaaggttt ctgaacctct ttctggttct cagcagaagt aactgaagta 180
gatcaggaag gggctgcctc aggaaaattc ctagatccta ggaattcagt gagaccctgg 240
gaaggaccag catgctaatc agtgtcagtg aatccacagt ctttacttcc tgcctcataa 300
agggccaggt ctccccagta ccaagtcctt tcctcatgaa gttgtgttgc ctcaggctgt 360
ttagggacca ttgcctgtct tggtcacatg agtctgtctc cttactttag tccctgggca 420
atccttgctt aatgcttttg ttgactcaac g 451

<210> 241
<211> 411
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<222> 62, 82, 364, 370, 385
<223> n = A,T,C or G

<400> 241
aatctccagt gtgatggtat cggggttaga gcttcaatct ccagtgtgat ggtactgcag 60
cnagagcttc aatctccagt gngatggtat tagggttaga tcttcaatct ccagtgtgat 120
ggtatcaggg ttagagcttc agcctccagt gtgatggtat cagggttaga gcttcagcct 180
ccagtgtgat ggtatcgggg ttagatcttc aatccccagt ggtggtggtt agagcttcaa 240
tctccagtgt gatggtattg gggttagagc ttcaatctcc agtctgatgg tgtttcggga 300
tggggctttt aagatgtaat tagggtttaa gatcataagg gacctggtct gatggggatt 360
agtncgcttn tatgaagaga cacangaggg cttgctctat ctctgactct c 411

<210> 242
<211> 351
<212> DNA
<213> Homo sapiens

<400> 242
ttccccttca caacagtaga gacctacaca gtgaactttg gggacttctg agatcagcgt 60
cctaccaaga ccccagccca actcaagcta cagcagcagc acttcccaag cctgctgacc 120
acagtcacat cacccatcag cacatggaag gcccctggta tggacactga aaggaagggc 180
tggtcctgcc cctttgaggg ggtgcaaaca tgactgggac ctaagagcca gaggctgtgt 240
agaggctcct gctccacctg ccagtctcgt aagaaatggg gttgctgcag tgttggagta 300
ggggcagagg gagggagcca aggtcactcc aataaaacaa gctcatggca c 351

<210> 243
<211> 241
<212> DNA
<213> Homo sapiens

<400> 243
gtctgtgctt tatcaggaaa agcacaagaa tatgtttttc tacctaaaac cctcttctac 60
tttaaaaatg gtttgctgaa ttttttctatg tttttaaaat gtttttatgc tttttttttaa 120
acacgtaaag gatggaacct aatcctctcc cgagacgcct cctttgtgtt aatgcctatt 180
cttacaacag agaaacaagt acattaatat aaaaacgagt tgattattgg ggtataaaat 240
a 241

<210> 244
<211> 301
<212> DNA
<213> Homo sapiens

<400> 244
ggtccagagc aatagcgtct gtggtgaagc gcctgcactc ctcgggagac atgcctggct 60
tatatgctgc atccacataa ccatagataa aggtgctgcc ggagccacca atggcaaaag 120
gctgtcgagt cagcattcct cccagggttc catatacctg acctccttca cgttggtccc 180
agccagctac catgagatgt gcagacaagt cctctcgata tttatagctg atatttctca 240
ccacatttgc agcagccaaa acaagtggag gttcctccag ttctatccca tggagctcca 300
g 301

<210> 245
<211> 391
<212> DNA
<213> Homo sapiens

<400> 245
ctgacactgc tgatgtgggc cggggggcgc cgaggcacaa ctggtggccg gaccattgag 60
gcacctggag ggtaggcagc ttgtggtgca gacaccacag agagagaaaa gttggatgga 120
gtggtgggaa taatcagggt ggcacactgt gcctagaagc ttccagggcc accaagagaa 180
tgggaaggga aactacaaca ttcacaacag aaataggagt caattcactt agacccagaa 240
ctccagaaag ggggagtgta ggaatctaca atttcaaagc cagctcgtgt ctacctagag 300
ccccaaactg cataagcacc aggattgtac accttagtcc ctcaagatag tttcaagtga 360
gcgtgcaatt cactcttaca gaggagggcc t 391

<210> 246
<211> 291
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 26, 80, 82, 185, 255, 259
<223> n = A,T,C or G

<400> 246
tcctccacag gggaagcagg aagttngacc agcttcaggc tggaacgtgc ccagggcaca 60
gagctggcaa ggtgcaaagn cntctgcaga atattcacca ggttgacaca gacctccaca 120
ttcagacata ttccaagctt ctggggtctt cagggcccca gaatttcctg gtcttgggca 180
tggtncacaa gtcatttgtc cttcctcatt ttggaaggtt ccatttggac ataaaatgca 240
agcgttctcg tgctncatna taataggtcc cagcctgcac tgacacattt g 291

<210> 247
<211> 471
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 80, 110, 125, 245, 249, 279, 318, 336, 339, 455, 471
<223> n = A,T,C or G

<400> 247
cactgagtga atgagtatat aatttatgaa aacagaaaag tgctttggaa aaaaaaaaag 60
acaacaggag tacatacagn gaaccaaaaa gagtgtacca ggaggagcan accctgaaca 120
gttanaacta tggaaatcgc tatgctttgt gttgtcacag gagttaaaat aggaataccc 180
tgcatacaat aaatatttat tggataaata actaagcctg ataccctttt caatgcgtta 240
tacanactnt atcatcacac cactaatcta agttctcana agttaaacat tacaagactt 300
cagaacaaca taggcgtntt tggctccatt taacanaana aggaccatag tgatcattta 360
atctctatga gtctgtctta tcttctggaa aaggggccta acaccatttc cttttgcaaa 420
aaggtagctg ccttgcttcc agttctacca tcctntagca acccatcttt n 471

<210> 248
<211> 551
<212> DNA

<213> Homo sapiens

<400> 248
ccatgggatc aggaatgggg tcaggtcagt tgacctgagc atacccatta aacatgttca 60
aatgtcccca tcccacccac tcacatgaca tggctcccga gccctgagat ctgtatccca 120
agaacctcag ttgagaaata tttatggcag cttcactgtt gctcaagagc ctgggtattg 180
tagcagcctg ggggcaggtt gtccctaatg ttctccaagt tcttcacatc agccagaatc 240
ccatctatgc ttgtctccag caaatggagg tggcccctct gctgacgtgc cctctcttcc 300
agctctgaca tcatgggccg cagttggctg ttgatctggg tcttggctcg ggaaagcttc 360
tgctccagta agaccagccc ctcttcatct acactgagag gctggtccat cagatgcagg 420
aggccgtcta atgtgttgag tgtgtcttgg attgtaaccc cagcgttctt ggctctggta 480
tcaaccttct gggcttctgt aatcaccatc tgtactgcat ccatattcgt gtcgaactcc 540
agctccttcc t 551

<210> 249
<211> 181
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 3, 96
<223> n = A,T,C or G

<400> 249
atntccagag ggaccgtaag actggtacaa gtttacacca taagaggcga cgtggtcagc 60
cacaatgtct tcacctccac aggggctcat cacggnggtc agggcaaggg cccccagcat 120
cagagctttg tttaggatca tcctcttccc aaggcagcct tagcagttgc tgacctgccc 180
g 181

<210> 250
<211> 551
<212> DNA
<213> Homo sapiens

<400> 250
tctgtagcta ggatgagctg gctctcaagc aaaagtttgt cttcctgggt ccatttgtgg 60
ttatcacttg ttattgaatg tacatcacaa attaaagtct gcattgttgg acgtaagaga 120
atgtgccgac tttggtaacc aggagatttc atgttactgg actgcctgta gtcacgtatt 180
tctgctatga cacatccgca atgaaaaata ttaacctgag atttttctag gagatcaacc 240
aaaataggag gtaattcttc tgcatccaaa tattcaagca actctccttc ttcatagggc 300
agtcgaatgg tctcggaatc tgatccgttt tttcccctga gcatcagaga atatccctca 360
tttcctgggt atagattgac cactaaacat gacaaagtct cttgcataac aagcttctct 420
aacaagttca catttcttct taatttctta acttcaggtt ctttttcaca ttcttcaata 480
tacaagtcat aaagtttttg aaatacagat tttcttccac ttgataggta tttccttta 540
ggaggtctct g 551

<210> 251
<211> 441
<212> DNA
<213> Homo sapiens

<400> 251
tgtctgctct cccatcctgg ttactatgag tcgctcttgg cagaaaggac cacagatgga 60

gagcttggca ctcgctccaa ctttgccgaa aagaggacaa ccaccaaagt agtaggtaaa 120
aacacaattt tagcagcagt gaaataaaaa gaggaagtga ggatggggcc aggccgcaac 180
tataattaaa ctgtctgttt aggagaagct gaatccagaa gaaacacaag ctgtaaagtg 240
agagaggaca gggagcaggg cctttggaga gcaggagagg acaggctgtc accaagcgct 300
gctcggactc tgccctgaaa gatttgaatt ggacactgtc cagtcacgtg tgtggcaaac 360
cgtactccaa gcacttttct cacggcagag gaaggagctg ccatggctgt acccctgaac 420
gtttgtgggg ccagcgatgt g 441

<210> 252
<211> 406
<212> DNA
<213> Homo sapiens

<400> 252
ttttttttg aacaagtaaa aatttcttta tttgctgaca ataagataac ctacagggaa 60
aacctgatga aatctattaa aaagttacta aaactaataa aagaatttag gaaggttata 120
gaatgtaaga ccaagacaca aaaatcaatt acatttctat ataatagcaa tgaacagata 180
ctgaaatttt aaaaactaaa tcattttaca aaagtatcac aatatgaaac actccgggat 240
aaattggata aaagatgtgc aagactgtac aaaagctaca aaacatttat gaaggaaatt 300
ggaagataga aacaagatag aaaatgaaaa tattgtcaag agtttcagat agaaaatgaa 360
aaacaagcta agacaagtat tggagaagta tagaagatag aaaaat 406

<210> 253
<211> 544
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 224
<223> n = A,T,C or G

<400> 253
gaaggagttc agtagcaaag tcacacctgt ccaattccct gagctttgct cactcagcta 60
atgggatggc aaaggtggtg gtgctttcat cttcaggcag aagcctctgc ccatcccccc 120
caagggctgc aggcccagtt ctcatgctgc ccttgggtgg gcatctgtta acagaggaga 180
acgtctgggt ggcggcagca gctttgctct gagtgcctac aaanctaatg cttggtgcta 240
gaaacatcat cattattaaa cttcagaaaa gcagcagcca tgttcagtca ggctcatgct 300
gcctcactgc ttaagtgcct gcaggagccg cctgccaagc tccccttcct acacctggca 360
cactggggtc tgcacaaggc tttgtcaacc aaagacagct tccccctttt gattgcctgt 420
agactttgga gccaagaaac actctgtgtg actctacaca cacttcaggt ggtttgtgct 480
tcaaagtcat tgatgcaact tgaaaggaaa cagtttaatg gtggaaatga actaccattt 540
ataa 544

<210> 254
<211> 339
<212> DNA
<213> Homo sapiens

<400> 254
tggcattcag ggcagtgtct tctgcatctc ctaggaacct cgggagcggc agctccggcg 60
cctggtagcg agaggcgggt tccggagatc ccggcctcac ttcgtcccac tgtggttagg 120
ggtgagtcct gcaaatgtta agtgatttgc tcaaggtgcc catttcgcag gaattggagc 180
ccaggccagt tctctgagcc tatcattagg gctaaaggag tgcgtgatca gaatggtgtc 240

tggacggttc tacttgtcct gcctgctgct ggggtccctg ggctctatgt gcatcctctt 300
cactatctac tggatgcagt actggcgtgg tggctttgc 339

<210> 255
<211> 405
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 11, 39, 70, 87, 103, 120, 177, 181, 220, 229, 233, 341, 345,
366, 380, 402
<223> n = A,T,C or G

<400> 255
gaggtttttt nttttttttt ttttttttnt caattaaana tttgatttat tcaagtatgt 60
gaaaacattn tacaatggaa acttttntta aatgctgcat gtnctgtgct atggaccacn 120
cacatacagc catgctgttt caaaaaactt gaaatgccat tgatagttta aaaactntac 180
ncccgatgga aaatcgagga aaacaattta atgtttcatn tgaatccana ggngcatcaa 240
attaaatgac agctccactt ggcaaataat agctgttact tgatggtatc caaaaaaaaa 300
tggttgggga tggataaatt caaaaatgct tccccaaagg ngggnggttt ttaaaaagtt 360
tcaggncaca acccttgcan aaaacactga tgcccaacac antga 405

<210> 256
<211> 209
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 6
<223> n = A,T,C or G

<400> 256
gggcangtct ggtcctctcc ccacatgtca cactctcctc agcctctccc ccaaccctgc 60
tctccctcct cccctgccct agcccaggga cagagtctag gaggagcctg gggcagagct 120
ggaggcagga agagagcact ggacagacag ctatggtttg gattggggaa gaggttagga 180
agtaggttct taaagaccct tttttagta 209

<210> 257
<211> 343
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 306, 311, 343
<223> n = A,T,C or G

<400> 257
tctggacacc ataatccctt ttaagtggct ggatggtcac acctctccca ttgacaagct 60
gggttaagtc aataggttga ctaggatcaa cacgacccaa atcaataaga tactgcagtc 120
tattgagact caaaggctta tactggcgtc tgaaactatg tccttcgtta aacccgtatt 180
ttgggattcg gatgtaaaat ggagtctggc ctccctcaaa gcccaagcgg ggccgggttc 240

ctctttgcct ttctccttta tggcctctgc cacattttct acctcttctc cgacctcttg 300
gtcttntctc nggtttcttg gagccgggat tcggctttaa gtn 343

<210> 258
<211> 519
<212> DNA
<213> Homo sapiens

<400> 258
gcggcttctg acttctagaa gactaaggct ggtctgtgtt tgcttgtttg cccacctttg 60
gctgataccc agagaacctg ggcacttgct gcctgatgcc cacccctgcc agtcattcct 120
ccattcaccc agcgggaggt gggatgtgag acagcccaca ttggaaaatc cagaaaaccg 180
ggaacaggga tttgcccttc acaattctac tccccagatc ctctcccctg gacacaggag 240
acccacaggg caggacccta agatctgggg aaaggaggtc ctgagaacct tgaggtaccc 300
ttagatcctt ttctacccac tttcctatgg aggattccaa gtcaccactt ctctcaccgg 360
cttctaccag ggtccaggac taaggcgttt tctccatagc ctcaacattt tgggaatctt 420
cccttaatca cccttgctcc tcctgggtgc ctggaagatg gactggcaga gacctctttg 480
ttgcgttttg tgctttgatg ccaggaatgc cgcctagtt 519

<210> 259
<211> 371
<212> DNA
<213> Homo sapiens

<400> 259
attgtcaact atatacacag tagtgaggaa taaaatgcac acaaaacaat ggatagaata 60
tgaaaatgtc ttctaaatat gaccagtcta gcatagaacc ttcttctctt ccttctcagg 120
tcttccagct ccatgtcatc taacccactt aacaaacgtg gacgtatcgc ttccagaggc 180
cgtcttaaca actccatttc caaaagtcat ctccagaaga catgtatttt ctatgatttc 240
ttttaaacaa atgagaattt acaagatgtg taactttcta actctatttt atcatacgtc 300
ggcaacctct ttccatctag aagggctaga tgtgacaaat gttttctatt aaaaggttgg 360
ggtggagttg a 371

<210> 260
<211> 430
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 57, 189, 208, 256, 426
<223> n = A,T,C or G

<400> 260
ttggattttt tgacttgcga tttcagtttt tttacttttt ttttttttt ttttganaaa 60
tactatattt attgtcaaag agtggtacat aggtgagtgt tcatcttccc tctcatgccg 120
gtatactctg cttcgctgtt tcagtaaaag ttttccgtag ttctgaacgt cccttgacca 180
caccataana caagcgcaag tcactcanaa ttgccactgg aaaactggct caactatcat 240
ttgaggaaag actganaaag cctatcccaa agtaatggac atgcaccaac atcgcggtac 300
ctacatgttc ccgtttttct gccaatctac ctgtgtttcc aagataaatt accacccagg 360
gagtcacttc ctgctatgtg aacaaaaacc cggtttcttt ctggaggtgc ttgactactc 420
tctcgngagc 430

<210> 261

<211> 365
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 178
<223> n = A,T,C or G

<400> 261
tcctgacgat agccatggct gtaccactta actatgattc tattccaact gttcagaatc 60
atatcacaaa atgacttgta cacagtagtt tacaacgact cccaagagag gaaaaaaaaa 120
aaaaaagacg cctcaaaatt cactcaactt ttgagacagc aatggcaata ggcagcanag 180
aagctatgct gcaactgagg gcacatatca ttgaagatgt cacaggagtt taagagacag 240
gctggaaaaa atctcatact aagcaaacag tagtatctca taccaagcaa aaccaagtag 300
tatctgctca gcctgccgct aacagatctc acaatcacca actgtgcttt aggactgtca 360
ccaaa 365

<210> 262
<211> 500
<212> DNA
<213> Homo sapiens

<400> 262
cctagatgtc atttgggacc cttcacaacc attttgaagc cctgtttgag tccctgggat 60
atgtgagctg tttctatgca taatggatat tcggggttaa caacagtccc ctgcttggct 120
tctattctga atccttttct ttcaccatgg ggtgcctgaa gggtggctga tgcatatggt 180
acaatggcac ccagtgtaaa gcagctacaa ttaggagtgg atgtgttctg tagcatccta 240
tttaaataag cctattttat cctttggccc gtcaactctg ttatctgctg cttgtactgg 300
tgcctgtact tttctgactc tcattgacca tattccacga ccatggttgt catccattac 360
ttgatcctac tttacatgtc tagtctgtgt ggttggtggt gaataggctt ctttttacat 420
ggtgctgcca gcccagctaa ttaatggtgc acgtggactt ttagcaagcg ggctcactgg 480
aagagactga acctggcatg 500

<210> 263
<211> 413
<212> DNA
<213> Homo sapiens

<400> 263
ctcagagagg ttgaaagatt tgcctacgaa agggacagtg atgaagctaa gctctagatc 60
caggatgtct gacttcaaat tgaaactccc aaagtaatga gtttggaagg gtggggtgtg 120
gcctttccag gatgggggtc ttttctgctc ccagcggata gtgaaacccc tgtctgcacc 180
tggttgggcg tgttgctttc ccaaaggttt ttttttttagg tccgtcgctg tcttgtggat 240
taggcattat tatctttact ttgtctccaa ataacctgga gaatggagag agtagtgacc 300
agctcagggc cacagtgcga tgaggaccat cttctcacct ctctaaatgc aggaagaaac 360
gcagagtaac gtggaagtgg tccacaccta ccgccagcac attgtgaatg aca 413

<210> 264
<211> 524
<212> DNA
<213> Homo sapiens

<400> 264

tccaatgggg ccctgagagc tgtgacagga actcacactc tggcactggc agcaaaacac 60
cattccaccc cactcatcgt ctgtgcacct atgttcaaac tttctccaca gttccccaat 120
gaagaagact catttcataa gtttgtggct cctgaagaag tcctgccatt cacagaaggg 180
gacattctgg agaaggtcag cgtgcattgc cctgtgtttg actacgttcc cccagagctc 240
attaccctct ttatctccaa cattggtggg aatgcacctt cctacatcta ccgcctgatg 300
agtgaactct accatcctga tgatcatgtt ttatgaccga ccacacgtgt cctaagcaga 360
ttgcttaggc agatacagaa tgaagaggag acttgagtgt tgctgctgaa gcacatcctt 420
gcaatgtggg agtgcacagg agtccaccta aaaaaaaaaa tccttgatac tgttgcctgc 480
ctttttagtc accccgtaac aagggcacac atccaggact gtgt 524

<210> 265
<211> 344
<212> DNA
<213> Homo sapiens

<400> 265
tcctttcttc tacttcagga gatgattcaa agttacttgt ggacatttct ttaagttctg 60
aagacaaatg agacaggatt tggcctgcgg gttcttcaga cttctctacc acctccatta 120
actcttcatc ttggcttgac gtaggcaatg cactattttg ctcttttgtt tctggagatg 180
acccagcacc acttctttct cttggcgggg ttctaagtgt gtctttgaat accagtgaag 240
actcaggcct atcctgtact ggaaagggac taaatttgtc tttctgtcta ggaggtgatg 300
cagtagcatc ctcctgaggg ggtaaggcca ttttctcttt ttga 344

<210> 266
<211> 210
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 78
<223> n = A,T,C or G

<400> 266
ccacaatgtc cataacttga gcaggctttg gcatcccacc acccccttca gaccaataca 60
cactatgttg gaggaacnac tttaaaatgt aaaatgagaa atgggcactg aacactccat 120
cctcactccc aacagcccac ccacacacct cttcaactgc tatccaaaca tggaggagct 180
cttgtggaag agaggctcaa caccaaataa 210

<210> 267
<211> 238
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 5, 19, 31
<223> n = A,T,C or G

<400> 267
tcggncctcc caccctctna ctgaaattct ntgaaattct ccccctttggg atgaggatgg 60
caaccccagg catgtaccct cccaacctgg gacccgacct aataccctaa catcctgctg 120
acagtggctg ttctcgctgg gcaggcgtcc caaagcacat cgagccagat tcaggcagag 180
tggaactggc ccctcagcca tcagtggagg tggcctggga ggctctaccc tgaacggg 238

<210> 268
<211> 461
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 459
<223> n = A,T,C or G

<400> 268
tcctcaagga catgcccctt gatagaaact cagttcctgt ctccagttcc ctcctggacc 60
tgatccccca aatgcagggc ctgggactat atccagttcc ttattttcag aggcccatgc 120
acaagatgca cagcaaataa gtgctgaata aagacccagc tactgctagc ttaccctgct 180
ccaaacattc accaagtcct cagcaaagag ggccatccat tcacctcttc taaaaacaca 240
ctgagctccc cagtctatac cccaagatat gcttggctcc caactatccc tcctctctca 300
tctccaagcc agtttcccct ttctaagtat actgatatta ccaaagacac tgacaatctt 360
cttttcctac ctctccccag tgactaggtt tgcagcagga gctctataag tcctagtata 420
cagcagaagc tccataaatg tgtgctgacc taacattang c 461

<210> 269
<211> 434
<212> DNA
<213> Homo sapiens

<400> 269
ctgtgttggt gagcaccgat tcccactcaa tatggcgtgg cttacagtct tcattaggtt 60
cccgctccca accagaatga ggaatgatca cttcatctgt caaggcatgc agtgcatggt 120
ccacaatctc cattttgatt gagtcatggg atgaaagatt ccacagggtt ccggtaataa 180
cttcagtaag gtccatatca cgagcctttc gaagcaatcg cacaagggca ggcacaccat 240
cacagttttt tatggcaatc ttgttatcct ggtcacgtcc aaaagagata ttcttgagag 300
ctccacaggc tccaaggtgc acttcctttt tgggatggtc taacaatccc accagtactg 360
ggatgccctt gagcttccgc acgtcagtct tcaccttgtc attgcggtag cataagtgtt 420
gcaggtatgc aaga 434

<210> 270
<211> 156
<212> DNA
<213> Homo sapiens

<400> 270
ctgcaccagc gattaccagt ggcattcaaa tactgtgtga ctaaggattt tgtatgctcc 60
ccagtagaac cagaatcaga caggtatgag ctagtcaaca gcaagtcttt gttggattcg 120
agtaggctca ggatctgctg aaggtcggag gagtta 156

<210> 271
<211> 533
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 100, 137, 383, 385, 411

<223> n = A,T,C or G

<400> 271
ccactgtcac ggtctgtctg acacttactg ccaaacgcat ggcaaggaaa aactgcttag 60
tgaagaactt agaagctgtg gagaccttgg ggtccacgtn caccatctgc tctgataaaa 120
ctggaactct gactcanaac cggatgacag tggcccacat gtggtttgac aatcaaatcc 180
atgaagctga tacgacagag aatcagagtg gtgtctcttt tgacaagact tcagctacct 240
ggcttgctct gtccagaatt gcaggtcttt gtaacagggc agtgtttcag gctaaccagg 300
aaaacctacc tattcttaag cgggcagttg caggagatgc ctctgagtca gcactcttaa 360
agtgcataga gctgtgctgt ggntncgtga aggagatgag agaaagatac nccaaaatcg 420
tcgagatacc cttcaactcc accaacaagt accagttgtc tattcataag aaccccaaca 480
catcggagcc ccaacacctg ttggtgatga agggcgcccc agaaaggatc cta 533

<210> 272
<211> 630
<212> DNA
<213> Homo sapiens

<400> 272
tggtattttt ctttttcttt tggatgtttt atactttttt ttcttttttc ttctctattc 60
ttttcttcgc cttcccgtac ttctgtcttc cagtttttcca cttcaaactt ctatcttctc 120
caaattgttt catcctacca ctcccaatta atctttccat tttcgtctgc gtttagtaaa 180
tgcgttaact aggctttaaa tgacgcaatt ctccctgcgt catggatttc aaggtctttt 240
aatcaccttc ggtttaatct ctttttaaaa gatcgccttc aaattatttt aatcacctac 300
aacttttaaa ctaaacttta agctgtttaa gtcaccttca ttttaatcta aaagcattgc 360
ccttctattg gtattaattc ggggctctgt agtcctttct ctcaattttc ttttaaatac 420
attttttact ccatgaagaa gcttcatctc aacctccgtc atgttttaga aacctttttat 480
cttttccttc ctcatgctac tcttctaagt cttcatattt tctcttaaaa tcttaagcta 540
ttaaaattac gttaaaaact taacgctaag caatatctta gtaacctatt gactatattt 600
tttaagtagt tgtattaatc tctatctttc 630

<210> 273
<211> 400
<212> DNA
<213> Homo sapiens

<400> 273
tctggtttgc cctccagttc attctgaatc tagacttgct cagcctaatc aagttcctgt 60
acaaccagaa gcgacacagg ttcctttggt atcatccaca agtgaggggt acacagcatc 120
tcaacccttg taccagcctt ctcatgctac agagcaacga ccacagaagg aaccaattga 180
tcagattcag gcaacaatct ctttaaatac agaccagact acagcatcat catcccttcc 240
tgctgcgtct cagcctcaag tatttcaggc tgggacaagc aaacctttac atagcagtgg 300
aatcaatgta aatgcagctc cattccaatc catgcaaacg gtgttcaata tgaatgcccc 360
agttcctcct gttaatgaac cagaaacttt aaaacagcaa 400

<210> 274
<211> 351
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 2
<223> n = A,T,C or G

<400> 274
tntgagtatg tcccagagaa ggtgaagaaa gcggaaaaga aattagaaga gaatccatat 60
gaccttgatg cttggagcat tctcattcga gaggcacaga atcaacctat agacaaagca 120
cggaagactt atgaacgcct tgttgcccag ttccccagtt ctggcagatt ctggaaactg 180
tacattgaag cagaggttac tattttattt tatttttttct tatatcagta ttgcagcatt 240
cactgtagtg atagaaaaca agttaggaac atagccaatt aggacaagga ggatttaaat 300
gtgtcttacc tttattttgt aaaataggta taaaggagta attaaaatga a 351

<210> 275
<211> 381
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 4, 11, 12, 13
<223> n = A,T,C or G

<400> 275
gcgnggtcgc nnncgaggtc tgagaagccc ataccactat ttgttgagaa atgtgtggaa 60
tttattgaag atacagggtt atgtaccgaa ggactctacc gtgtcagcgg gaataaaact 120
gaccaagaca atattcaaaa gcagtttgat caagatcata atatcaatct agtgtcaatg 180
gaagtaacag taaatgctgt agctggagcc cttaaagctt tctttgcaga tctgccagat 240
cctttaattc catattctct tcatccagaa ctattggaag cagcaaaaat cccggataaa 300
acagaacgtc ttcatgcctt gaaagaaatt gttaagaaat ttcatcctgt aaactatgat 360
gtattcagat acgtgataac a 381

<210> 276
<211> 390
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 5
<223> n = A,T,C or G

<400> 276
gctcngactc cggcgggacc tgctcggagg aatggcgccg ccgggttcaa gcactgtctt 60
cctgttggcc ctgacaatca tagccagcac ctgggctctg acgcccactc actacctcac 120
caagcatgac gtggagagac taaaagcctc gctggatcgc cctttcacaa atttggaatc 180
tgccttctac tccatcgtgg gactcagcag ccttggtgct caggtgccag atgcaaagaa 240
agcatgtacc tacatcagat ctaaccttga tcccagcaat gtggattccc tcttctacgc 300
tgcccaggcc agccaggccc tctcaggatg tgagatctct atttcaaatg agaccaaaga 360
tctgcttctg gcagacctcg gccgcgacca 390

<210> 277
<211> 378
<212> DNA
<213> Homo sapiens

<400> 277
tgggaacttc tggggtagga cgttgtctgc tatctccagt tccacagacc caaccagtta 60

cgatggtttt ggaccattta tgccgggatt cgacatcatt ccctataatg atctgcccgc 120
actggagcgt gctcttcagg atccaaatgt ggctgcgttc atggtagaac caattcaggg 180
tgaagcaggc gttgttgttc cggatccagg ttacctaatg ggagtgcgag agctctgcac 240
caggcaccag gttctcttta ttgctgatga aatacagaca ggattggcca gaactggtag 300
atggctggct gttgattatg aaaatgtcag acctgatata gtcctccttg gaaaggccct 360
ttctgggggc ttataccc 378

<210> 278
<211> 366
<212> DNA
<213> Homo sapiens

<400> 278
ggagggcaca ttccttttca cctcagagtc ggtcggggaa ggccacccag ataagatttg 60
tgaccaaacc agtgatgctg tccttgatgc ccaccttcag caggatcctg atgccaaagt 120
agcttgtgaa actgttgcta aaactggaat gatccttctt gctggggaaa ttacatccag 180
agctgctgtt gactaccaga aagtggttcg tgaagctgtt aaacacattg gatatgatga 240
ttcttccaaa ggttttgact acaagacttg taacgtgctg gtagccttgg agcaacagtc 300
accagatatt gctcaaggtg ttcatcttga cagaaatgaa gaagacattg gtgctggaga 360
ccaggg 366

<210> 279
<211> 435
<212> DNA
<213> Homo sapiens

<400> 279
cctaagaact gagacttgtg acacaaggcc aacgacctaa gattagccca gggttgtagc 60
tggaagacct acaacccaag gatggaaggc ccctgtcaca aagcctacct agatggatag 120
aggacccaag cgaaaaagat atctcaagac taacggccgg aatctggagg cccatgaccc 180
agaacccagg aaggatagaa gcttgaagac ctggggaaat cccaagatga gaaccctaaa 240
ccctacctct tttctattgt ttacacttct tactcttaga tatttccagt tctcctgttt 300
atctttaagc ctgattcttt tgagatgtac tttttgatgt tgccggttac ctttagattg 360
acaagtatta tgcctggcca gtcttgagcc agctttaaat cacagctttt acctatttgt 420
taggctatag tgttt 435

<210> 280
<211> 435
<212> DNA
<213> Homo sapiens

<400> 280
tctggatgag ctgctaactg agcacaggat gacctgggac ccagcccagc caccccgaga 60
cctgactgag gccttcctgg caaagaagga gaaggccaag gggagccctg agagcagctt 120
caatgatgag aacctgcgca tagtggtggg taacctgttc cttgccggga tggtgaccac 180
ctcgaccacg ctggcctggg gcctcctgct catgatccta cacctggatg tgcagcgtga 240
gcccagacct gtccgggcgg ccgctcgaaa ttccagcaca ctggcggccg ttactagtgg 300
atccgagctc ggtaccaagc ttggcgtaat catggtcata gctgtttcct gtgtgaaatt 360
gttatccgct cacaattcca cacaacatac gagccggaag cataaagtgt aaagcctggg 420
gtgcctaatg agtga 435

<210> 281
<211> 440
<212> DNA

<213> Homo sapiens

<400> 281
catctgatct ataaatgcgg tggcatcgac aaaagaacca ttgaaaaatt tgagaaggag 60
gctgctgaga tgggaaaggg ctccttcaag tatgcctggg tcttggataa actgaaagct 120
gagcgtgaac gtggtatcac cattgatatc tccttgtgga aatttgagac cagcaagtac 180
tatgtgacta tcattgatgc cccaggacac agagacttta tcaaaaacat gattacaggg 240
acatctcagg ctgactgtgc tgtcctgatt gttgctgctg gtgttggtga atttgaagct 300
ggtatctcca agaatgggca gacccgagag catgcccttc tggcttacac actgggtgtg 360
aaacaactaa ttgtcggtgt taacaaaatg gattccactg agccccctac agccagaaga 420
gatatgagga aattgttaag 440

<210> 282
<211> 502
<212> DNA
<213> Homo sapiens

<400> 282
tctgtggcgc aggagccccc tcccccggca gctctgacgt ctccaccgca gggactggtg 60
cttctcggag ctcccactcc tcagactccg gtggaagtga cgtggacctg gatcccactg 120
atggcaagct cttccccagc gatggttttc gtgactgcaa gaaggggggat cccaagcacg 180
ggaagcggaa acgaggccgg ccccgaaagc tgagcaaaga gtactgggac tgtctcgagg 240
gcaagaagag caagcacgcg cccagaggca cccacctgtg ggagttcatc cgggacatcc 300
tcatccaccc ggagctcaac gagggcctca tgaagtggga gaatcggcat gaaggcgtct 360
tcaagttcct gcgctccgag gctgtggccc aactatgggg ccaaaagaaa aagaacagca 420
acatgaccta cgagaagctg agccgggcca tgaggtacta ctacaaacgg gagatcctgg 480
aacgggtgga tggccggcga ct 502

<210> 283
<211> 433
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 130, 147, 221, 225, 242, 246, 261, 279, 292, 294, 298, 314,
323, 332, 339, 342, 343, 350, 351, 356, 361, 362, 368, 372,
375, 379, 380, 382, 387, 390, 392, 394, 401, 404, 406, 409,
413, 423, 431, 433
<223> n = A,T,C or G

<400> 283
ccatattaga ttactggaac atctaagcat cagtgtgtga ccatgcgaac aaaagacttc 60
ggggagtgtc tatttttaaa aaggtttatg tgtgtcgagg cagttgtaaa agatttactg 120
cagaatcaan cccactttta ggcttangac caggttctaa ctatctaaaa atattgactg 180
ataacaaaaa gtgttctaaa tgtggctatt ctgatccata nttgnttttt aaagaaaaaa 240
antgtntata cagaaagagt ntaaaagttc tgtgaattna atgcaaatta gncnccantc 300
ttgacttccc aaanacttga ttnatacctt tnactcctnt cnnttcctgn ncttcnttaa 360
nntcaatnat tnggnagtnn anggccntcn gnanaacacc nttncncgnt ccncgcaatc 420
canccgcctt nan 433

<210> 284
<211> 479
<212> DNA

<213> Homo sapiens

<400> 284
tctggaagga tcagggatct gagcaaagcc aagtttactt aagctaagcc acttgttcct 60
gggtcaagca gtttgttttc taataagcat cattcctgat cattagagca aagggatgaa 120
tgctcctctt ggaatgatac aggggatctg ccactgggag agtgttgctc agtgttagag 180
tagcagcaat gacagaatga cagcgactct ctgagtcaac ccagtacttt tagtaccccg 240
tcactatgtg aataaaggca gctagaaaat ggactcaatt ctgcaagcct tcatggcaac 300
agcccatatt aagacttcta gaacaagtta aaaaaaaatc ttccatttcc atccatgcat 360
gggaaaaggg ctttagtata gtttaggatg gatgtgtgta taataataaa atgataagat 420
atgcatagtg ggggaataaa gcctcagagt ccttccagta tggggaatcc attgtatct 479

<210> 285
<211> 435
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 27, 83, 90, 93, 96, 184, 207, 227, 232, 293, 306, 307, 328,
331, 339, 343, 347, 349, 350, 370, 371, 382, 383, 414, 418,
434
<223> n = A,T,C or G

<400> 285
ttttttttttt ttttttttttt tcaatanaaa tgccataatt tattccattg tataaaaaag 60
tcatccttat gtaacaaaat gtnttcttan aanaanaaat atattatttc aggtcataaa 120
taatcagcaa acatacaact gttggcaact aaaaaaaaac ccaacactgg tattttccat 180
cagngctgaa aacaaacctg cttaaanata tatttacagg gatagtncag tnctcaaaaa 240
caaaaattga ggtattttgg ttcttctagg agtagacaat gacattttgg gangggcaga 300
cccctnnccc aaaaaataaa ataagggnat nttcttcant atngaanann gggggcgccc 360
cggggaaaan naaaccttgg gnnggggggtt tggcccaagc ccttgaaaaa aaantttntt 420
tcccaaaaaa aacng 435

<210> 286
<211> 301
<212> DNA
<213> Homo sapiens

<400> 286
cctggtttct ggtggcctct atgaatccca tgtagggtgc agaccgtact ccatccctcc 60
ctgtgagcac cacgtcaacg gctcccggcc cccatgcacg ggggagggag ataccccaa 120
gtgtagcaag atctgtgagc ctggctacag cccgacctac aaacaggaca agcactacgg 180
atacaattcc tacagcgtct ccaatagcga gaaggacatc atggccgaga tctacaaaaa 240
cggccccgtg gagggagctt tctctgtgta ttcggacttc ctgctctaca agtcaggagt 300
g 301

<210> 287
<211> 432
<212> DNA
<213> Homo sapiens

<400> 287
tccagcttgt tgccagcatg agaaccgcca ttgatgacat tgaacgccgg gactggcagg 60

atgacttcag agttgccagc caagtcagcg atgtggcggt acaggggggac ccccttctca 120
acggcaccag ctttgcagac ggcaagggac acccccagaa tggcgttcgc accaaactta 180
gatttatttt ctgttccatc catctcgatc atcagtttgt caatcttctc ttgttctgtg 240
acgttcagtt tcttgctaac cagggcaggc gcaatagttt tattgatgtg ctcaacagcc 300
tttgagacac ccttccccat atagcgagtc ttatcattgt cccggagctc tagggcctca 360
tagataccag ttgaagcacc actgggcaca gcagctctga agagaccttt tgaggtgaag 420
agatcaacct ca 432

<210> 288
<211> 326
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 254
<223> n = A,T,C or G

<400> 288
tctggctcaa gtcaaagtcc tggtcctctt ctccgcctcc ttcttcatca tagtaataaa 60
cgttgtcccg ggtgtcatcc tctgggggca gtaagggctc tttgaccacc gctctcctcc 120
gaagaaacag caagagcagc agaatcagaa ttagcaaagc aagaattcct ccaagaatcc 180
ccagaatggc aggaatttgc aatcctgctt cgacaggctg tgccttccta cagacgccgg 240
cggccccttc acantcacac acgctgacct ctaaggtggt cacttggtct ttattctggt 300
tatccatgag cttgagattg attttg 326

<210> 289
<211> 451
<212> DNA
<213> Homo sapiens

<400> 289
gtcccggtgt ggctgtgccg ttggtcctgt gcggtcactt agccaagatg cctgaggaaa 60
cccagaccca agaccaaccg atggaggagg aggaggttga gacgttcgcc tttcaggcag 120
aaattgccca gttgatgtca ttgatcatca atactttcta ctcgaacaaa gagatctttc 180
tgagagagct catttcaaat tcatcagatg cattggacaa aatccggtat gaaagcttga 240
cagatcccag taaattagac tctgggaaag agctgcatat taaccttata ccgaacaaac 300
aagatcgaac tctcactatt gtggatactg gaattggaat gaccaaggct gacttgatca 360
ataaccttgg tactatcgcc aagtctggga ccaaagcgtt catggaagct ttgcaggctg 420
gtgcagatat ctctatgatt ggacctcggc c 451

<210> 290
<211> 494
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 421
<223> n = A,T,C or G

<400> 290
ttttttttttt tcaaaacagt atattttatt ttacaatagc aaccaactcc ccagtttgtt 60
tcaattgtga catctagatg gcttaagatt actttctggt ggtcacccat gctgaacaat 120

atttttcaat cttccaaaca gcaaagactc aaaagagatt ctgcatttca catcagttca 180
caagttcaag agtcttccat ttatcttagc ttttggaata aattatcttt gaggtagaag 240
gacaatgacg aagccactta attccttgtg tctgcataaa agcagattta ttcatcacaa 300
cttcatttat gtgaataaag cagatgatga taaaatgttc tcttattctt gtttaatcag 360
tagtggtagt gatgccagaa acttgtaaat gcacttcaaa ccaattgtgg ctcaagtgta 420
ngtggttccc caaggctggt accaatgaga ctggggtttg ggaattagtt ggtcatcatc 480
cctcctgctg ccca 494

<210> 291
<211> 535
<212> DNA
<213> Homo sapiens

<400> 291
tcgcgtgctt aacatgaaaa caaactttgt gctgtttggt tcattgtatg cattgatgga 60
gtcttgtctc tcatcatggg gtgtctgacc atccaacctg cagtactcat aatttctcca 120
catgcaataa tcttccaaaa tgtccaatac ccttgtcatt tgactgaaga ttagtactcg 180
tgaaccttgt tcttttaact tagggagcag cttgtctaaa accaccattt tgccactgtt 240
ggttactaga tgcatatctg ttgtataagg tggaccaggt tctgctccat caaagagata 300
tggatgatta caacattttc tcaactgcat taggatgttc aataacctca ttttgtccat 360
cttgcctgct gagttgagta tatctatatc cttcattaat atccgagtat accattccct 420
ttgcattttg ctgaggccca catagatttt tacttccttc tttggaggca aactcttttc 480
aacatcagcc ttaattcgac gaaggaggaa tggacgcaaa accatatgaa gcctc 535

<210> 292
<211> 376
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 4, 348
<223> n = A,T,C or G

<400> 292
tacnagcccg tgctgatcga gatcctggtg gaggtgatgg atccttcctt cgtgtgcttg 60
aaaattggag cctgcccctc ggcccataag cccttgttgg gaactgagaa gtgtatatgg 120
ggcccaagct actggtgcca gaacacagag acagcagccc agtgcaatgc tgtcgagcat 180
tgcaaacgcc atgtgtggaa ctaggaggag gaatattcca tcttggcaga aaccacagca 240
ttggtttttt tctacttgtg tgtctggggg aatgaacgca cagatctgtt tgactttgtt 300
ataaaaatag ggctccccca cctcccccat ttttgtgtcc tttattgnag cattgctgtc 360
tgcaagggag ccccta 376

<210> 293
<211> 320
<212> DNA
<213> Homo sapiens

<400> 293
tcggctgctt cctggtctgg cggggatggg tttgctttgg aaatcctcta ggaggctcct 60
cctcgcatgg cctgcagtct ggcagcagcc ccgagttgtt tcctcgctga tcgatttctt 120
tcctccaggt agagttttct ttgcttatgt tgaattccat tgcctctttt ctcatcacag 180
aagtgatgtt ggaatcgttt cttttgtttg tctgatttat ggttttttta agtataaaca 240
aaagtttttt attagcattc tgaaagaagg aaagtaaaat gtacaagttt aataaaaagg 300

ggccttcccc tttagaatag 320

<210> 294
<211> 359
<212> DNA
<213> Homo sapiens

<400> 294
ctgtcataaa ctggtctgga gtttctgacg actccttgtt caccaaatgc accatttcct 60
gagacttgct ggcctctccg ttgagtccac ttggctttct gtcctccaca gctccattgc 120
cactgttgat cactagcttt ttcttctgcc cacaccttct tcgactgttg actgcaatgc 180
aaactgcaag aatcaaagcc aaggccaaga gggatgccaa gatgatcagc cattctggaa 240
tttggggtgt ccttatagga ccagaggttg tgtttgctcc accttcttga ctcccatgtg 300
agtgtccatc tgattcagat ccatgagtgg tatgggaccc cccactgggg tggaatgtg 359

<210> 295
<211> 584
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 558
<223> n = A,T,C or G

<400> 295
cctgagttgg gctgactgcc agagacagac ccctctgggt ctcggtgaac cagccaggca 60
tttacctcag tggttggcac ctggaacctg tccagggccc tcacctgact gaggagccgc 120
cgggcagtga agtaattgtc caggtctatg ctcttggggt ggataccata gccatccaag 180
gtattcctca ggttgtggaa ctgggtctga gtataggcag aactgggccc caggatgatc 240
tcccggagtg ggggaagctg tgaggtcagg taagtatcca cgtccacccg taccccaatc 300
aaactcagca gaatggtgaa ctggagaagt ccttccgtta agtatttctt cagagaaagc 360
attgctgaag gaccagaatg tttatgcttt ttggttttta aaatcttcca aaagacaaat 420
caaggccact gctctgccgc tccagccagc aggttaccct cctcagtgtc aaaccccgta 480
ccccaccctg gcagaacaca agggatgagc tccctgacgg ccccagagga aagcacaccc 540
tgtggagcca aggccaanga cacactccag accacattca cttt 584

<210> 296
<211> 287
<212> DNA
<213> Homo sapiens

<400> 296
ccttatcatt cattcttagc tcttaattgt tcattttgag ctgaaatgct gcattttaat 60
tttaaccaaa acatgtctcc tatcctggtt tttgtagcct tcctccacat cctttctaaa 120
caagatttta aagacatgta ggtgtttgtt catctgtaac tctaaaagat cctttttaaa 180
ttcagtccta agaaagagga gtgcttgtcc cctaagagtg tttaatggca aggcagccct 240
gtctgaagga cacttcctgc ctaagggaga gtggtatttg cagacta 287

<210> 297
<211> 457
<212> DNA
<213> Homo sapiens

<400> 297
ccaattgaaa caaacagttc tgagaccgtt cttccaccac tgattaagag tggggtggca 60
ggtattaggg ataatattca tttagccttc tgagctttct gggcagactt ggtgaccttg 120
ccagctccag cagccttctt gtccactgct ttgatgacac ccaccgcaac tgtctgtctc 180
atatcacgaa cagcaaagcg acccaaaggt ggatagtctg agaagctctc aacacacatg 240
ggcttgccag gaaccatatc aacaatggca gcatcaccag acttcaagaa tttagggcca 300
tcttccagct ttttaccaga acggcgatca atcttttcct tcagctcagc aaacttgcat 360
gcaatgtgag ccgtgtggca atccaataca ggggcatagc cggcgcttat ttggcctgga 420
tggttcagga taatcacctg agcagtgaag ccagacc 457

<210> 298
<211> 469
<212> DNA
<213> Homo sapiens

<400> 298
tctttgactt tccttgtcta cctcctctgg agatctcaaa ttctccaggt tccatgctcc 60
cagagatctc aatgattcct gattctcctc ttccaggagt ctgaatgtct cttggttcac 120
ttccacagac tccagtggtt cttgaatttc cttttctaga ggattcattg cccccctgatt 180
tatttcttct ggagtccaca gtggtgcttg agtttctgga gatttcagtg tttccaggtt 240
ctcttgtccc gcagacttca gtgattctag gatctctgtt tctaaagatt ttactgcctc 300
tatgctctct tctttgagtg actttaagaa ctcttgattc tcattttcaa gaggtctagc 360
tatctcctgg tcaagagact tcagtggttc tagatccact ttttctgggg gtcttaatgt 420
catctgatcc tgttccccta gagacctccg tcgctgttga gtctctttt 469

<210> 299
<211> 165
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 37, 82, 144
<223> n = A,T,C or G

<400> 299
tctgtggaga ggatgaggtt gagggaggtg gggtatntcg ctgctctgac cttaggtaga 60
gtcctccaca gaagcatcaa antggactgg cacatatgga ctcccttcac aggccacaat 120
gatgtgtctc tccttcgggc tggnccggta tgcacagttg gggta 165

<210> 300
<211> 506
<212> DNA
<213> Homo sapiens

<400> 300
tctgaggaaa gtttgggctt attagtattt gctccagcga acctccaagt tttctccatt 60
gcggacaacg taactaccag ctccttggct cagtggttcg cctccactca gaagttccca 120
gtaggttctg tcattattgt tggcacatag gccctgaata caggtgatat agggccccca 180
tgagcgctcc tccattgtga aaccaaatat agtatcattc attttctggg ctttctccat 240
cacactgagg aagacagaac catttagcac agtgacattg gtgaaatatg tttcattgat 300
tctcacagag taattgacgg agatatatga ttgtgagtca ggaggtgtca cagttatagg 360
ctcatcagcg gagatgttga agttacctga agcagagacg caagaagagt ctttgttaat 420
atccaagaag gtctttccca tcagggcagg taagacctgg gctgcagcgt ttggattgct 480

gaatgctcct tgagaaattt ccgtga 506

<210> 301
<211> 304
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 221, 223, 252, 275, 280
<223> n = A,T,C or G

<400> 301
tcctaaggca gagcccccat cacctcaggc ttctcagttc ccttagccgt cttactcaac 60
tgccccttc ctctccctca gaatttgtgt ttgctgcctc tatcttgttt tttgtttttt 120
cttctggggg gggtctagaa cagtgcctgg cacatagtag gcgctcaata aatacttgtt 180
tgttgaatgt ctcctctctc tttccactct gggaaaccta ngnttctgcc attctgggtg 240
accctgtatt tntttctggt gcccattcca tttgnccagn taatacttcc tcttaaaaat 300
ctcc 304

<210> 302
<211> 492
<212> DNA
<213> Homo sapiens

<400> 302
ttttcagtaa gcaacttttc catgctctta atgtattcct ttttagtagg aatccggaag 60
tattagattg aatggaaaag cacttgccat ctctgtctag gggtcacaaa ttgaaatggc 120
tcctgtatca catacggagg tcttgtgtat ctgtggcaac agggagtttc cttattcact 180
ctttatttgc tgctgtttaa gttgccaacc tcccctccca ataaaaattc acttacacct 240
cctgcctttg tagttctggt attcacttta ctatgtgata gaagtagcat gttgctgcca 300
gaatacaagc attgcttttg gcaaattaaa gtgcatgtca tttcttaata cactagaaag 360
gggaaataaa ttaaagtaca caagtccaag tctaaaactt tagtactttt ccatgcagat 420
ttgtgcacat gtgagagggt gtccagtttg tctagtgatt gttatttaga gagttggacc 480
actattgtgt gt 492

<210> 303
<211> 470
<212> DNA
<213> Homo sapiens

<400> 303
tctggggcag caggtactcc ctacggcact agtctacagg gggaaggacg ctctgtgctg 60
gcagcggtgg ctcacatggc ctgtctgcac tgtaaccaca ggctgggatg tagccaggac 120
ttggtctcct tggaagacag gtctgatgtt tggccaatcc agtccttcag accctgcctg 180
aaacttgtat cttacgtgaa cttaaagaat aaaatgcatt tctacccga tctcgccccc 240
aggactggca cgacaggccc acggcagatt agatcttttc ccagtactga tcggtgcgtg 300
gaattccagc caccacttct gattcgattc cacagtgatc ctgtcctctg agtattttaa 360
agaagccatt gtcaccccag tcagtgttcc aggagttggc aaccagccag tagggtgtgc 420
cattctccac tccccagccc aggatgcgga tggcatggac ctcggccgcg 470

<210> 304
<211> 79
<212> DNA

<213> Homo sapiens

<400> 304
tgtcccattg ttaactcagc ctcaaatctc aactgtcagg ccctacaaag aaaatggaga 60
gcctcttctg gtggatgcg 79

<210> 305
<211> 476
<212> DNA
<213> Homo sapiens

<400> 305
tcactgagcc accctacagc cagaagagat atgaggaaat tgttaaggaa gtcagcactt 60
acattaagaa aattggctac aaccccgaca cagtagcatt tgtgccaatt tctggttgga 120
atggtgacaa catgctggag ccaagtgcta acgtaagtgg ctttcaagac cattgttaaa 180
aagctctggg aatggcgatt tcatgcttac acaaattggc atgcttgtgt ttcagatgcc 240
ttggttcaag ggatggaaag tcacccgtaa ggatggcaat gccagtggaa ccacgctgct 300
tgaggctctg gactgcatcc taccaccaac tcgtccaact gacaagccct tgcgcctgcc 360
tctccaggat gtctacaaaa ttggtggtaa gttggctgta aacaaagttg aatttgagtt 420
gatagagtac tgtctgcctt cataggtatt tagtatgctg taaatatttt taggta 476

<210> 306
<211> 404
<212> DNA
<213> Homo sapiens

<400> 306
tctgtctcgg agctcagggc gcagccagca cacacaggag cccacaggac agccacgtct 60
tcacagaaac tacagaagtc aggacccagg cgaggacctc aggaacaagt gccccctgca 120
gacagagaga cgcagtagca acagcttctg aacaactaca taataatgcg gggagaatcc 180
tgaagaccac tgcatcccac aagcactgac aaccacttca ggattttatt tcctccactc 240
taacccccag atccatttat gagaagtgag tgaggatggc aggggcatgg agggtgaagg 300
gacagcaagg atggtctgag ggcctggaaa caatagaaaa tcttcgtcct ttagcatatc 360
ctggactaga aaacaagagt tggagaagag gggggttgat acta 404

<210> 307
<211> 260
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 10, 255, 257
<223> n = A,T,C or G

<400> 307
tcctgcctan acatctgtga gggcctcaag ggctgctgcc tcgactttct ccctagctaa 60
gtccacccgt ccagggacac agccagggca ctgctctgtg ctgacttcca ctgcagccaa 120
gggtcaaaat gaagcatctg cggaggccag gactccttgg catcggacac agtcagggga 180
aaagccaccc tgactctgca ggacagaggg tctagggtca tttggcagga gaacactggt 240
gtgccaaggg aagcnancat 260

<210> 308
<211> 449

<212> DNA
<213> Homo sapiens

<400> 308
tctgtgctcc cgactcctcc atctcaggta ccaccgactg cactgggcgg ggccctctgg 60
ggggaaaggc tccacggggc agggatacat ctcgaggcca gtcatcctct ggaggcagcc 120
caatcaggtc aaagattttg cccaactggt cggcttcaga gtttccacag aagagaggct 180
ttcgacgaaa catctctgca aagatacagc caacactcca catgtccaca ggtgttgcat 240
atgtggactg cagaagaact tcgggagctc ggtaccagag tgtaacaacc ttgatcgttt 300
cggctggcaa gcctggtggg ggtgccttgt ccagatatgt ccttaggtcc tggtctacat 360
gctcaaacac cagggttacc ttgatctccc ggtcagttcg ggatgtggca cagacgtcca 420
tcagccggac aacattggga tgctcaaaa 449

<210> 309
<211> 411
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 384
<223> n = A,T,C or G

<400> 309
ctgtggaaac ctggggtgcc gggtaaatgg agaactccag cttggatttc ttgccataat 60
caactgagag acgttccatg agcagggagg tgaacccaga accagttccc ccaccaaagc 120
tgtggaaaac caagaagccc tgaagaccgg tgcactggtc agccagcttg cgaattcggt 180
ccaacacaag gtcaatgatc tccttgccaa tggtgtagtg ccctcgggca tagttattgg 240
cagcatcttc cttgcctgtg atgagctgct cagggtggaa gagctggcgg taggtgccag 300
tgcgaacttc atcaatgact gtgggttcca agtctacaaa cacagcccgg ggcacgtgct 360
tgccagcgcc cgtctcactt gaanaagggt gtttgaagga agtcatctcc t 411

<210> 310
<211> 320
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 250
<223> n = A,T,C or G

<400> 310
tcctcgtcca gcttgactcg attagtcctc ataaggtaag caaggcagat ggtggctgac 60
cgggaaatgc ctgcctggca gtggacaaac acccttcctc cagcattctt gatggagtct 120
atgaagtcaa tggcctcgtt gaaccaggag ctgatgtctg ccttgtggtt gtcctccaca 180
gggatgctct tgtactggta gtgaccctca aaatggttgg gacaattggc tgagacgttg 240
atcaaggcan ttatgcccaa ggcatccagc atgtccttgc gggaagcgtg atacgcactg 300
cccaggtaca gaaagggcag 320

<210> 311
<211> 539
<212> DNA
<213> Homo sapiens

<400> 311
tctggcccat gaagctgaag ttgggagaga tgatgcttcg cctctgcttc acaaactcaa 60
aggcctcgtc cagcttgact cgattagtcc tcataaggta agcaaggcag atggtggctg 120
accgggaaat gcctgcctgg cagtggacaa acacccttcc tccagcattc ttgatggagt 180
ctatgaagtc aatggcctcg ttgaaccagg agctgatgtc tgccttgtgg ttgtcctcca 240
cagggatgct cttgtactgg tagtgaccct caaaatggtt gggacaattg gctgagacgt 300
tgatcaaggc agttatgccc aaggcatcca gcatgtcctt gcgggaagcg tgatacgcac 360
tgcccaggta cagaaagggc aggatttcca ccgggccacc ctgaaatcca gaaatatcca 420
acattcatca agcttgctca aagccaaggc cagtgcccat acccacaaaa actttctgct 480
ggaaaagtca atttcagata ccgagtgaac tcagttctgt tgctggagga taaataaat 539

<210> 312
<211> 475
<212> DNA
<213> Homo sapiens

<400> 312
tcaaggatct tcctaaagcc accatgtgag aggattcgga cgagagtctg agctgtatgg 60
cagaccatgt cctgctgttc tagggtcatg actgtgtgta ctctaaagtt gccactctca 120
caggggtcag tgatacccac tgaacctggc aggaacagtc ctgcagccag aatctgcaag 180
cagcgcctgt atgcaacgtt tagggccaaa ggctgtctgg tggggttgtt catcacagca 240
taatggccta gtaggtcaag gatccagggt gtgaggggct caaagccagg aaaacgaatc 300
ctcaagtcct tcagtagtct gatgagaact ttaactgtgg actgagaagc attttcctcg 360
aaccagcggg catgtcggat ggctgctaag gcactctgca atactttgat atccaaatgg 420
agttctggat ccagttttcg aagattgggt ggcactgttg taatgagaat cttca 475

<210> 313
<211> 456
<212> DNA
<213> Homo sapiens

<400> 313
tccacttaaa gggtgcctct gccaactggt ggaatcatcg ccacttccag caccacgcca 60
agcctaacat cttccacaag gatcccgatg tgaacatgct gcacgtgttt gttctgggcg 120
aatggcagcc catcgagtac ggcaagaaga agctgaaata cctgccctac aatcaccagc 180
acgaatactt cttcctgatt gggccgccgc tgctcatccc catgtatttc cagtaccaga 240
tcatcatgac catgatcgtc cataagaact gggtggacct ggcctgggcc gtcagctact 300
acatccggtt cttcatcacc tacatccctt tctacggcat cctgggagcc ctcctttttcc 360
tcaacttcat caggttcctg gagagccact ggtttgtgtg ggtcacacag atgaatcaca 420
tcgtcatgga gattgaccag gaggacctcg gcccgc 456

<210> 314
<211> 477
<212> DNA
<213> Homo sapiens

<400> 314
tgcgtgggct tctggaagcc tggatctgga atcattcacc agattattct ggaaaactat 60
gcgtaccctg gtgttcttct gattggcact gactcccaca cccccaatgg tggcggcctt 120
gggggcatct gcattggagt tgggggtgcc gatgctgtgg atgtcatggc tgggatcccc 180
tgggagctga agtgccccaa ggtgattggc gtgaagctga cgggctctct ctccggttgg 240
tcctcaccca aagatgtgat cctgaaggtg gcaggcatcc tcacggtgaa aggtggcaca 300
ggtgcaatcg tggaatacca cgggcctggt gtagactcca tctcctgcac tggcatggcg 360

acaatctgca acatgggtgc agaaattggg gccaccactt ccgtgttccc ttacaaccac 420
aggatgaaga agtatctgag caagaccggc cgggaagaca ttgccaatct agctgat 477

<210> 315
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 35
<223> n = A,T,C or G

<400> 315
caggtactgg atgtcaggtc tgcgaaactt cttanatttt gacctcagtc cataaaccac 60
actatcacct cggccatcat atgtgtctac tgtggggaca actggagtga aaacttcggt 120
tgctgcaggt ccgtgggaaa atcagtgacc agttcatcag attcatcaga atggtgagac 180
tcatcagact ggtgagaatc atcagtgtca tctacatcat cagagtcgtt cgagtcaatg 240
g 241

<210> 316
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 1, 4, 32, 39, 68, 77, 82, 94, 166, 172, 195, 196
<223> n = A,T,C or G

<400> 316
nttntgtgat agtgtggttt atggactgag gncaaaatnt aagaagtttc gcagacctga 60
catccaancc tgcccgngcg gncgctcgaa aggncgaatt ctgcagatat ccatcacact 120
ggcggccgct cgagcatgca tctagagggc ccaattcgcc ctatantgag tnatattaca 180
attcactggc cgtcnnttta caacgtcgtg actgggaaaa ccctggcgtt acccaactta 240
a 241

<210> 317
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 15, 25, 135, 154, 193
<223> n = A,T,C or G

<400> 317
aggtaccctg ctcancagcc tgggngcctg ggttgtctcc ttgtccatcc actggtccat 60
tctgctctgc attttttttgt tcctcttttg gaggttccac tttgggtttg ggctttgaaa 120
ttatagggct acaantacct cggccgaaac cacnctaagg gcgaattctg cagatatcca 180
tcacactggc ggncgctcga gcatgcatct agagggccca attcgcccta tagtgagtcg 240
t 241

<210> 318
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 3, 5, 10, 11, 24, 28, 31, 34, 40, 42, 47, 53, 74, 80, 96,
101, 127, 129, 136, 138, 205, 241
<223> n = A,T,C or G

<400> 318
cgngnacaan ntacattgat gganggtntg nggntctgan tntttantta cantggagca 60
ttaatatttt cttnaacgtn cctcaccttc ctgaantaaa nactctgggt tgtagcgctc 120
tgtgctnana accacntnaa ctttacatcc ctcttttgga ttaatccact gcgcggccac 180
ctctgccgcg accacgctaa gggcnaattc tgcagatatc catcacactg gcggccgctc 240
n 241

<210> 319
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 24, 36, 39
<223> n = A,T,C or G

<400> 319
caggtactga tcggtgcgtg gaantccagc caccanttnt gattcgattc cacagtgatc 60
ctgtcctctg agtattttaa agaagccatt gtcaccccag tcagtgttcc aggagttggc 120
aaccagccag tagggtgtgc cattctccac tccccagccc aggatgcgga tggcatggcc 180
acccatcatc tctccggtga cgtgttggta cctcggccgc gaccacgcta agggcgaatt 240
c 241

<210> 320
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 27, 215, 216, 217, 220, 222, 235
<223> n = A,T,C or G

<400> 320
ggcaggtacc aacagagctt agtaatntct aaaaagaaaa aatgatcttt ttccgacttc 60
taaacaagtg actatactag cataaatcat tctagtaaaa cagctaaggt atagacattc 120
taataatttg ggaaaaccta tgattacaag tgaaaactca gaaatgcaaa gatgttggtt 180
ttttgtttct cagtctgctt tagcttttaa ctctnnnaan cncatgcaca cttgnaactc 240
t 241

<210> 321
<211> 241

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 2, 25, 26, 228
<223> n = A,T,C or G

<400> 321
angtaccaac agagcttagt aattnntaaa aagaaaaaat gatctttttc cgacttctaa 60
acaagtgact atactagcat aaatcattct agtaaaacag ctaaggtata gacattctaa 120
taatttggga aaacctatga ttacaagtga aaactcagaa atgcaaagat gttggttttt 180
tgtttctcag tctgctttag cttttaactc tggaagcgca tgcacacntg aactctgctc 240
a 241

<210> 322
<211> 241
<212> DNA
<213> Homo sapiens

<400> 322
ggtaccaaca gagcttagta atttctaaaa agaaaaaatg atctttttcc gacttctaaa 60
caagtgacta tactagcata aatcattctt ctagtaaaac agctaaggta tagacattct 120
aataatttgg gaaaacctat gattacaagt aaaaactcag aaatgcaaag atgttggttt 180
tttgtttctc agtctgcttt agcttttaac tctggaagcg catgcacact gaactctgct 240
c 241

<210> 323
<211> 241
<212> DNA
<213> Homo sapiens

<400> 323
cgaggtactg tcgtatcctc agccttgttc tatttcttta ttttagcttt acagagatta 60
ggtctcaagt tatgagaatc tccatggctt tcaggggcta aacttttctg ccattctttt 120
gctcttaccg ggctcagaag gacatgtcag gtgggatacg tgtttctctt tcagagctga 180
agaaagggtc tgagctgcgg aatcagtaga gaaagccttg gtctcagtga ctccttggct 240
t 241

<210> 324
<211> 241
<212> DNA
<213> Homo sapiens

<400> 324
aggtactgtc gtatcctcag ccttgttcta tttctttatt ttagctttac agagattagg 60
tctcaagtta tgagaatctc catggctttc aggggctaaa cttttctgcc attcttttgc 120
tcttaccggg ctcagaagga catgtcaggt gggatacgtg tttctctttc agagctgaag 180
aaagggtctg agctgcggaa tcagtagaga aagccttggt ctcagtgact ccttggcttt 240
c 241

<210> 325
<211> 241
<212> DNA

<213> Homo sapiens

<400> 325
ggcaggtaca tttgttttgc ccagccatca ctctttttg tgaggagcct aaatacattc 60
ttcctggggt ccagagtccc cattcaaggc agtcaagtta agacactaac ttggcccttt 120
cctgatggaa atatttcctc catagcagaa gttgtgttct gacaagactg agagagttac 180
atgttgggaa aaaaaaagaa gcattaactt agtagaactg aaccaggagc attaagttct 240
g 241

<210> 326
<211> 241
<212> DNA
<213> Homo sapiens

<400> 326
gcaggtacat ttgttttgcc cagccatcac tctttttgt gaggagccta aatacattct 60
tcctggggtc cagagtcccc attcaaggca gtcaagttaa gacactaact tggcccttc 120
ctgatggaaa tatttcctcc atagcagaag ttgtgttctg acaagactga gagagttaca 180
tgttgggaaa aaaaagaagc attaacttag tagaactgat ccaggagcat taagttctga 240
a 241

<210> 327
<211> 241
<212> DNA
<213> Homo sapiens

<400> 327
ggtaccagac caagtgaatg cgacagggaa ttatttcctg tgttgataat tcatgaagta 60
gaacagtata atcaaaatca attgtatcat cattagtttt ccactgcctc acactagtga 120
gctgtgccaa gtagtagtgt gacacctgtg ttgtcatttc ccacatcacg taagagcttc 180
caaggaaagc caaatcccag atgagtctca gagagggatc aatatgtcca tgattatcag 240
g 241

<210> 328
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 6, 19, 66, 232, 240
<223> n = A,T,C or G

<400> 328
ggtacnagac caaatgaang ccacagggaa ttatttcctg tgttgataat tcatgaagta 60
gaacantata atcaaaatca attgtatcat cattagtttt ccactgcctc acactagtga 120
gctgtgccaa gtagtagtgt gacacctgtg ttgtcatttc ccacatcacg taagagcttc 180
caaggaaagc caaatcccag atgagtctca gagagggatc aatatgtcca tnatcatcan 240
g 241

<210> 329
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 33, 61, 220, 228, 229, 240, 241
<223> n = A,T,C or G

<400> 329
ttcaggtcga gttggctgca gatttgtggt gcnttctgag ccgtctgtcc tgcgccaaaa 60
ngcttcaaag tattattaaa aacatatgga tccccatgaa gccctactac accaaagttt 120
accaggagat ttggatagga atggggctga tgggcttcat cgtttataaa atccgggctg 180
ctgataagaa gtaaggcttt gaaagcttca gcgcctgctn ctggtcanna ctaaccatan 240
n 241

<210> 330
<211> 241
<212> DNA
<213> Homo sapiens

<400> 330
ttttgtgcag atttgtggtg cgttctgagc cgtctgtcct gcgccaagat gcttcaaagt 60
attattaaaa acatatggat ccccatgaag ccctactaca ccaaagttta ccaggagatt 120
tggataggaa tggggctgat gggcttcatc gtttataaaa tccgggctgc tgataaaaga 180
agtaaggctt tgaaagcttc agcgcctgct cctggtcatc actaaccaga tttacttgga 240
g 241

<210> 331
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 1, 9, 41, 60, 61, 119, 124, 132, 139, 141, 153, 168
<223> n = A,T,C or G

<400> 331
nttttaggna ctttgggctc cagacttcac tggtcttagg nattgaaacc atcacctggn 60
ntgcattcct catgactgag gttaacttaa aacaaaaatg gtaggaaagc tttcctatnc 120
ttcnggtaag anacaaatnt nctttaaaaa aangtggaag gcatgacnta cgtgagaact 180
gcacaaactg gccactgaca aaaatgaccc ccatttgtgt gacttcattg agacacatta 240
c 241

<210> 332
<211> 241
<212> DNA
<213> Homo sapiens

<400> 332
tgtgaggaga gggaacatgc tgagaaactg atgaagctgc agaaccaacg aggtggccga 60
atcttccttc aggatatcaa gaaaccagac tgtgatgact gggagagcgg gctgaatgca 120
atggagtgtg cattacattt ggaaaaaaat gtgaatcagt cactactgga actgcacaaa 180
ctggccactg acaaaaatga cccccatttg tgtgacttca ttgagacaca ttacctgaat 240
g 241

<210> 333
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 44, 52, 60, 98, 104, 108, 124, 126, 190, 198, 206, 214
<223> n = A,T,C or G

<400> 333
caggtacaag ctttttttt ttttttttt ttttttttt ttgnaaatac tntttattgn 60
aaatattcta tcctaaattc catatagcca attaattntt acanaatntt ttgttaattt 120
ttgngngtat aaattttaca aaaataaagg gtatgtttgt tgcacacaac ttacaaataa 180
taataaactn tttattgnaa atattnttta ttgnaaatat tctttatcct aaattccata 240
t 241

<210> 334
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 10, 16, 22, 24, 49, 158, 159, 237
<223> n = A,T,C or G

<400> 334
tacctgctgn aggggntgaa gncntctctg ctgccccagg catctgcanc ccctgctgct 60
ggttctgccc ctgctgcagc agaggagaag aaagatgaga agaaggagga gtctgaagag 120
tcagatgatg acatgggatt tggccttttt gattaaannc ctgctcccct gcaaataaag 180
ccttttttaca caaaaaaaaa aaaaaaaaaa aaaaaaaaaa aagcttgtac ctgcccnggc 240
g 241

<210> 335
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 39
<223> n = A,T,C or G

<400> 335
ctatgtgctg ggatgactat ggagacccaa atgtctcana atgtatgtcc cagaaacctg 60
tggctgcttc aaccattgac agttttgctg ctgctggctt ctgcagacag tcaagctgca 120
gctcccccaa aggctgtgct gaaacttgag cccccgtgga tcaacgtgct ccaggaggac 180
tctgtgactc tgacatgcca gggggctcgc agccctgaga gcgactccat tcagtggttc 240
c 241

<210> 336
<211> 241
<212> DNA

<213> Homo sapiens

<400> 336
taccaaccta tgcagccaag caacctcagc agttcccatc aaggccacct ccaccacaac 60
cgaaagtatc atctcaggga aacttaattc ctgcccgtcc tgctcctgca cctcctttat 120
atagttccct cacttgattt ttttaacctt ctttttgcaa atgtcttcag ggaactgagc 180
taatactttt ttttttcttg atgttttctt gaaaagcctt tctgttgcaa ctatgaatga 240
a 241

<210> 337
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 47, 56, 69, 228
<223> n = A,T,C or G

<400> 337
ggtactgtat gtagctgcac tacaacagat tcttaccgtc tccacanagg tcatanattg 60
taaatggtna atactgactt ttttttttatt cccttgactc aagacagcta acttcatttt 120
cagaactgtt ttaaaccttt gtgtgctggt ttataaaata atgtgtgtaa tccttgttgc 180
tttcctgata ccagactgtt tcccgtggtt ggttagaata tattttgntt tgatgcttat 240
a 241

<210> 338
<211> 241
<212> DNA
<213> Homo sapiens

<400> 338
aggtacaggt gtgcgctgag ccgagtttac acggaaagga taaagcccat ttagtttctt 60
ctcaaatgga gttttccact ttcctttgaa gtagacagca ttcaccagga tcatcctggt 120
atccccatct acagaacctt caggtaacaa gtttgggatt ttgcctttgg tttgagtctt 180
gacccaggaa ttaatctttt ttctagcttc ttctgcacat tctaggaagt ctactgcctg 240
g 241

<210> 339
<211> 241
<212> DNA
<213> Homo sapiens

<400> 339
taccgacggc tcctggaggg agagagtgaa gggacacggg aagaatcaaa gtcgagcatg 60
aaagtgtctg caactccaaa gatcaaggcc ataacccagg agaccatcaa cggaagatta 120
gttctttgtc aagtgaatga aatccaaaag cacgcatgag accaatgaaa gtttccgcct 180
gttgtaaaat ctattttccc ccaaggaaag tccttgcaca gacaccagtg agtgagttct 240
a 241

<210> 340
<211> 241
<212> DNA
<213> Homo sapiens

<400> 340
gtagccctca cacacacatg cccgtaacag gatttatcac aagacacgcc tgcatgtaga 60
ccagacacag ggcgtatgga aagcacgtcc tcaagactgt agtattccag atgagctgca 120
gatgcttacc taccacggcc gtctccacca gaaaaccatc gccaactcct gcgatcagct 180
tgtgacttac aaaccttgtt taaaagctgc ttacatggac ttctgtcctt taaaagcttc 240
c 241

<210> 341
<211> 241
<212> DNA
<213> Homo sapiens

<400> 341
gtaccgccta ctttcgtctc atgtctccga acttcttgct gatggccgtt ccaacgttgc 60
tgaaagctgc agttgccttt tgccctgcgt gactcagggt ttcatgtgtt ttcttgtagg 120
cagtggtagt ctgcatgtca tgccagcttt tgctgaagtt ctgttttaat tcattcatca 180
ggttcatgcc gagttttgtt ttatctcaac tagatgcctt tctttcgctg acaaaacttg 240
t 241

<210> 342
<211> 241
<212> DNA
<213> Homo sapiens

<400> 342
gtacattggt gctataaata taaatgctac ttatgaagca tgaaattaag cttcttttt 60
cttcaagttt tttctcttgt ctagcaatct gttaggcttc tgaaccaaga ccaaatgttt 120
acgttcctct gctgcatacc aacgttactc caaacaataa aaatctatca tttctgctct 180
gtgctgagga atggaaaatg aaaccccac cccctgaccc ctaggactat acagtggaaa 240
c 241

<210> 343
<211> 241
<212> DNA
<213> Homo sapiens

<400> 343
gtacatgtgg tagcagtaat ttttttgaag caactgcact gacattcatt tgagttttct 60
ctcattatca gattctgttc caaacaagta ttctgtagat ccaaatggat taccagtgtg 120
ctacagactt cttattatag aacagcattc tattctacat caaaaatagt ttgtgtaagt 180
tagttttggt taccatctaa aatattttta aatgttcttt acataaaaat ttatgttgtg 240
t 241

<210> 344
<211> 241
<212> DNA
<213> Homo sapiens

<400> 344
ggtacaaaat tgttggaatt tagctaatag aaaaacatag taaatattta caaaaacgtt 60
gataacatta ctcaagtcac acacatataa caatgtagac aggtcttaac aaagtttaca 120
aattgaaatt atggagattt cccaaaatga atctaatagc tcattgctga gcatggttat 180
caatataaca tttaagatct tggatcaaat gttgtccccg agtcttctgc aatccagtcc 240

t 241

<210> 345
<211> 241
<212> DNA
<213> Homo sapiens

<400> 345
ggtacgaagc tgagcgcacg ggggttgccc cagcgtggag cctggacctc aaacttcacg 60
gaaaatgctc tctctctttg acaggcttcc agctgtctcc taatttcctg gatgaactct 120
ccccggcgat ttaactgatc ctgaaaagtg gtgagaggac tgaggaagac aaccaggtca 180
gcgttagatc ggcctctgag ggtggtgccc ttgcctgagg agccaccctt taccaccttg 240
g 241

<210> 346
<211> 241
<212> DNA
<213> Homo sapiens

<400> 346
caggtaccac tgagcctgag atggggatga gggcagagag aggggagccc cctcttccac 60
tcagttgttc ctactcagac tgttgcactc taaacctagg gaggttgaag aatgagaccc 120
ttaggtttta acacgaatcc tgacaccacc atctataggg tcccaacttg gttattgtag 180
gcaaccttcc ctctctcctt ggtgaagaac atcccaagcc agaaagaagt taactacagt 240
g 241

<210> 347
<211> 241
<212> DNA
<213> Homo sapiens

<400> 347
aggtacatct aaaggcatga agcactcaat tgggcaatta acattagtgt ttgttctctg 60
atggtatctc tgagaatact ggttgtagga ctggccagta gtgccttcgg gactgggttc 120
acccccaggt ctgcggcagt tgtcacagcg ccagccccgc tggcctccaa agcatgtgca 180
ggagcaaatg gcaccgagat attccttctg ccactgttct cctacgtggt atgtcttccc 240
a 241

<210> 348
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 2, 18, 29, 35, 56, 57, 64, 76, 77, 85, 102, 103, 104, 189,
232
<223> n = A,T,C or G

<400> 348
angtacttgg caagattnga tgctcttgng ctcantgaca tcattcataa cttgtnngtg 60
tgancagagg aggagnncat catcntgtcc tcattcgtca gnnnccctctc ctctctgaat 120
ctcaaacaag ttgataatgg agaaaaattt gaattctcag gattgaggct ggactggttc 180
cgcctacang catacactag cgtggctaag gcccctctgc accctgcatg anaaccctga 240

c 241

<210> 349
<211> 241
<212> DNA
<213> Homo sapiens

<400> 349
gcaggtacca tttgtctgac ctctgtaaaa aatgtgatcc tacagaagtg gagctggata 60
atcagatagt tactgctacc cagagcaata tctgtgatga agacagtgct acagagacct 120
gctacactta tgacagaaac aagtgctaca cagctgtggt cccactcgta tatggtggtg 180
agaccaaaat ggtggaaaca gccttaaccc cagatgcctg ctatcctgac taatttaagt 240
c 241

<210> 350
<211> 241
<212> DNA
<213> Homo sapiens

<400> 350
aggtactgtg gatatttaaa atatcacagt aacaagatca tgcttgttcc tacagtattg 60
cgggccagac acttaagtga aagcagaagt gtttgggtga ctttcctact taaaattttg 120
gtcatatcat ttcaaaacat ttgcatcttg gttggctgca tatgctttcc tattgatccc 180
aaaccaaatc ttagaatcac ttcatttaaa atactgagcg gtattgaata cttcgaagca 240
g 241

<210> 351
<211> 241
<212> DNA
<213> Homo sapiens

<400> 351
tacagaaatc atttggagcc gttttgagac agaagtagag gctctgtcaa gtcaatactg 60
cattgcagct tggtccactg aagaagccac gcctgagata caaaagatgc actacacttg 120
acccgcttta tgttcgcttc ctctcccctt ctctctcatc aactttatta ggttaaaaca 180
ccacatacag gctttctcca aatgactccc tatgtctggg gtttggttag aattttatgc 240
c 241

<210> 352
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 10, 28, 29, 49, 54, 59, 72, 127, 148, 150, 160, 166, 182
<223> n = A,T,C or G

<400> 352
gtaccctgtn gagctgcacc aagattannt ggggccatca tgactgcanc cacnacgang 60
acgcaggcgt gnagtgcatc gtctgacccg gaaacccttt cacttctctg ctcccgaggt 120
gtcctcnggc tcatatgtgg gaaggcanan gatctctgan gagttncctg gggacaactg 180
ancagcctct ggagaggggc cattaataaa gctcaacatc attggcaaaa aaaaaaaaaa 240
a 241

<210> 353
<211> 241
<212> DNA
<213> Homo sapiens

<400> 353
aggtaccagt gcattaattt gggcaaggaa agtgtcataa tttgatactg tatctgtttt 60
ccttcaaagt atagagcttt tggggaagga aagtattgaa ctgggggttg gtctggccta 120
ctgggctgac attaactaca attatgggaa atgcaaaagt tgtttggata tggtagtgtg 180
tggttctctt ttggaatttt tttcaggtga tttaataata atttaaaact actataaaaa 240
c 241

<210> 354
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 1
<223> n = A,T,C or G

<400> 354
ngcaggtccg ggcaggtacc aagattcatt ctcatcaaaa actagaaaca gaagggcaaa 60
ttccagtttc cttctgggat tgaatacttt caagtaaggt cttcgacaaa caatcagggg 120
gccaattaat ccactgtaga ggtccttaac ttgatccaca gttgaataat aagcccatgg 180
aatacaagca gaatcctctg ttccagctcc agatctttct gggattttcc atacgtaagt 240
g 241

<210> 355
<211> 241
<212> DNA
<213> Homo sapiens

<400> 355
ggtacccacc ctaaatttga actcttatca agaggctgat gaatctgacc atcaaatagg 60
ataggatgga cctttttttg agttcattgt ataaacaaat tttctgattt ggacttaatt 120
cccaaaggat taggtctact cctgctcatt cactctttca aagctctgtc cactctaact 180
tttctccagt gtcatagata gggaattgct cactgcgtgc ctagtctttc ttcacttacc 240
t 241

<210> 356
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 27
<223> n = A,T,C or G

<400> 356
aggtactgta attgagcatc cggaatntgg agaagtaatt tagctacagg gtgaccaacg 60

caagaacata tgccagttcc tcgtagagat tggactggct aaggacgatc agctgaaggt 120
tcatgggttt taagtgcttg tggctcactg aagcttaagt gaggatttcc ttgcaatgag 180
tagaatttcc cttctctccc ttgtcacagg tttaaaaacc tcacagcttg tataatgtaa 240
c 241

<210> 357
<211> 241
<212> DNA
<213> Homo sapiens

<400> 357
ttttgtacca ccgatatgat caaggaaaat tctgcccatt tttatggctg aagttctaaa 60
aacctaattc aaagttcttc catgatccta cactgcctcc aagatggtcc aggctggcat 120
aaggcctgag cggcggtgag atccgcggct gccagcagct tgtcgctctt cagctggtat 180
gaagcccctc ggccacccga gtctccagga cctgcccggg cgccgctcga aagggcgaat 240
t 241

<210> 358
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 25, 57
<223> n = A,T,C or G

<400> 358
aggtacgggg agtgggggtg aagcntgttc tctacatagg caacacagcc gcctaantca 60
caaagtcagt ggtcggccgc ttcgaccaac atgtggtgag cattccacgg gcgcatgaag 120
tctgggtgct gtgctcgagt ctctgaatat tttgatagga agcgacaaga aaattcaaac 180
tgctctttgc tgactactgg aaagtgaaaa gatgctcaag tttaccattc aaagaaacca 240
t 241

<210> 359
<211> 241
<212> DNA
<213> Homo sapiens

<400> 359
gaggtacaca aaaggaatac cttctgagag ccagggagtg aggaaagggg aaggagactt 60
gacgtcaagg gtgcttttga ggaacatgac gggccagcca gcctgcccca actttgaggc 120
cctgctgggc tcttgtgact ataaatatac tgtctatttc taatgcaatc cgtctttcct 180
gaaagatctt gttatctttt actattgaga catgctttca tttttgtggt cctgtttcca 240
a 241

<210> 360
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 1

<223> n = A,T,C or G

<400> 360
ngtactctat actaattctg ccttttttata cttaattcta aatttctccc ctctaattta 60
caacaaattt tgtgattttt ataagaatct atgcctcccc aattctcaga ttcttctctt 120
ttctccttta tttctttgct taaattcagt ataagctttc ttggtatttt aggcttcatg 180
cacattctta ttcctaaaca ccagcagttc ttcagagacc taaaatccag tataggaata 240
a 241

<210> 361
<211> 241
<212> DNA
<213> Homo sapiens

<400> 361
aggtactctc cgtgccccga cactgaacat tatccagcca gatctgccca gtgccagctc 60
ccactttgta cttttcttac tatcctgtct agaatcatgt cttatgattt taacagatat 120
agaaccactc ctagaaaatg ttctttcact ttctcgtttc ctttttaatc tatcatcctg 180
actactgaac ttaaaatctt tttcttccct tttttgtttc tcttttcttt tatcctgttc 240
a 241

<210> 362
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 17, 23
<223> n = A,T,C or G

<400> 362
aggtactttt atacctngct tangtcagtg acagatttac caatgacaac acaattttaa 60
aattccaaca catatattac tttgtcctat gaagggcaaa aagtcaatat attttaaatt 120
ttaaaaacag aatggatata atgacctttt tacacatcag tgatatttaa aagacttaaa 180
gagacaatac tatggttgag acactggctt cctattccag ccctaattaa agaaaaaata 240
g 241

<210> 363
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 4
<223> n = A,T,C or G

<400> 363
ttangtacta aaaacaaaat cctaattctg ttttaaagag ctgggagatg ttaatcatat 60
gctcagtttt tccacgttat aatttcctaa atgcaaactt ttcaatcagg gcagttcaaa 120
ttcattacat cacagtaaat aacagtagcc aactttgatt ttatgcttat aggaaaaaaa 180
atcctgtaga tataaaaaca gcaaattttg acaaataaaa ctcaaaccat tcatccctaa 240
a 241

<210> 364
<211> 241
<212> DNA
<213> Homo sapiens

<400> 364
ggtacaagca gttagtcctg aaggcccctg ataagaatgt catcttctcc ccactgagca 60
tctccaccgc cttggccttc ctgtctctgg gggcccataa taccaccctg acagagattc 120
tcaaaggcct caagttcaac ctcacggaga cttctgaggc agaaattcac cagagcttcc 180
agcacctcct gcgcaccctc aatcagtcca gcgatgagct gcagctgagt atgggaaatg 240
c 241

<210> 365
<211> 241
<212> DNA
<213> Homo sapiens

<400> 365
cgaggtactg agattacagg catgagccac cacgcccggc caaaaacatt taaaaaatga 60
ctgtccctgc tcaaatactg cagtaggaaa tgtaatttga catatatcac ttccagaaaa 120
aaactttaaa tctttctata aaatgaattt gatacatcat cagcatgaag tgaagttaaa 180
atctcttaca aagtaaattc aggtatatca acaatgagat ccaaaagtat cggttcaaga 240
t 241

<210> 366
<211> 241
<212> DNA
<213> Homo sapiens

<400> 366
ggcaggtaca catcaaacac ttcattgcct aaatgcaggg acatgcttcc atctgaccac 60
ttgactatcc gagcattgct ttctttaatt tcatttcctt cttcatctcg gcgtatcctc 120
catcttatag tattttctac ctttaatttt aacctggttc taccttcttc atccagcatt 180
tcttcatctt caaattcatc ttcataatac tgggctctac acttgagaaa gttgggcagt 240
t 241

<210> 367
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 25
<223> n = A,T,C or G

<400> 367
gcaggtacaa ataattcctg ttgtnacatt tagtggacgc gattatctgt atacctcaaa 60
ttttaattta agaaagtatc acttaaagag catctcattt tctatagatt gaggcttaat 120
tactgaaaag tgactcaacc aaaaagcaca taacctttta aaggagctac acctaccgca 180
gaaagtcaga tgccctgtaa ataactttgg tctttcaaaa tagtggcaat gcttaagata 240
c 241

<210> 368
<211> 241
<212> DNA
<213> Homo sapiens

<400> 368
tttgtacatt gttaatagtg accctcggag gaaatggatt tctcttctat taaaaactct 60
atggtatata agcattacat aataatgcta cttaaccacc ttttgtctca agaattatca 120
ccaaagtttt ctggaaataa gtccacataa gaattaaata tttaaaaggt gaaatgttcc 180
ttattttaac tttagcaaga tcttttcttt ttcattaaga aacactttaa taattttaaa 240
g 241

<210> 369
<211> 241
<212> DNA
<213> Homo sapiens

<400> 369
gcaggtactt tattcttatt tcttatccta tattctgtgt tacagaaaaa ctactaccat 60
aaacaaaaca ccaaccagcc acagcagttg tgtcaagcat gacaattggt ctagtcttca 120
cattttatta gtaagtctat caagtaagag atgaagggtc tagaaaacta gacacaaagc 180
aaccagggtc caaatcacca aggtagatct gtgcttagct aaagggaaac acccgaagat 240
t 241

<210> 370
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 1
<223> n = A,T,C or G

<400> 370
ngttcacagt gcccctccgg cctcgccatg aggctcttcc tgtcgctccc ggtcctggtg 60
gtggttctgt cgatcgtctt ggaaggccca gccccagccc aggggacccc agacgtctcc 120
agtgccttgg ataagctgaa ggagtttgga aacacactgg aggacaaggc tcgggaactc 180
atcagccgca tcaaacagag tgaactttct gccaagatgc gggagtggtt ttcagaagac 240
a 241

<210> 371
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 227
<223> n = A,T,C or G

<400> 371
ggcaggtcat cttgagcctt gcacatgata ctcagattcc tcacccttgc ttaggagtaa 60
aacaatatac tttacagggt gataataatc tccatagtta tttgaagtgg cttgaaaaag 120

gcaagattga cttttatgac attggataaa atctacaaat cagccctcga gttattcaat 180
gataactgac aaactaaatt atttccctag aaaggaagat gaaaggnagt ggagtgtggt 240
t 241

<210> 372
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 26, 27, 59
<223> n = A,T,C or G

<400> 372
aggtacagca aagcgaccct tggtgnnata gatcagacgg aaattctctc ccgtcttgnc 60
aatgctgatg acatccatga atccagcagg gtaggttata tcagttcgga ccttgccatc 120
gattttaatg aaccgctgca tgcaaatctt ctttacttca tctcctgtca gggcatactt 180
aagtctgttc ctcaggaaaa tgatgagggg gagacactct ctcaacttgt ggggaccggt 240
g 241

<210> 373
<211> 241
<212> DNA
<213> Homo sapiens

<400> 373
tactgaaaca gaaaaaatgt attcccacaa aagctgttac acagcggttt cccgtcccca 60
gaagcagtag aaaatcttag cattccaatg gaaggcatgt atttgtaaaa tattctaaaa 120
tcagctctat agtttccttg tcctctttga taagggatca gacagagggt gtgtcccccc 180
tcagcagcta cccttcttga caaactggtc tccaataata cctttcagaa acttacaaga 240
c 241

<210> 374
<211> 241
<212> DNA
<213> Homo sapiens

<400> 374
caggtactaa aacttacaat aaatatcaga gaagccgtta gtttttacag catcgtctgc 60
ttaaaagcta agttgaccag gtgcataatt tcccatcagt ctgtccttgt agtaggcagg 120
gcaatttctg ttttcatgat cggaatactc aaatatatcc aaacatcttt ttaaaacttt 180
gatttatagc tcctagaaag ttatgttttt taatagtcac tctactctaa tcaggcctag 240
c 241

<210> 375
<211> 241
<212> DNA
<213> Homo sapiens

<400> 375
aggtacaaag gaccagtatc cctacctgaa gtctgtgtgt gagatggcag agaacggtgt 60
gaagaccatc acctccgtgg ccatgaccag tgctctgccc atcatccaga agctagagcc 120
gcaaattgca gttgccaata cctatgcctg taaggggcta gacaggattg aggagagact 180

gcctattctg aatcagccat caactcagat tgttgccaat gccaaaggcg ctgtgactgg 240
g 241

<210> 376
<211> 241
<212> DNA
<213> Homo sapiens

<400> 376
ggtacatttt actttccttc tttcagaatg ctaataaaaa acttttgttt atacttaaaa 60
aaaccataaa tcagacaaac aaaagaaacg attccaacat cacttctgtg atgagaaaag 120
aggcaatgga attcaacata agcaaagaaa actctacctg gaggaaagaa atcgatcagc 180
gaagaaacaa ctcggggctg ctgccagact gcaggccatg cgaggaggag cctcctagag 240
g 241

<210> 377
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 234
<223> n = A,T,C or G

<400> 377
tcctttctgt ccaggtgatt cacagactag acctttctta tcctcctcct agagttttga 60
cttgggactc tagtgttaag atgatgagcc cgtgcatcag gtccttctgc actttggtgg 120
aagtctccca gggtaggttt cctatttgaa acagtggaat catgtttcca gtgataaagt 180
ttaatgacct catccttttt ttttttttnc tcatctgcca tttgtgtgtc ttanatgggt 240
t 241

<210> 378
<211> 241
<212> DNA
<213> Homo sapiens

<400> 378
aggtcagcga tcaggtcctt tatgggcagc tgctgggcag ccccacaagc ccagggccag 60
ggcactatct ccgctgcgac tccactcagc ccctcttggc gggcctcacc cccagcccca 120
agtcctatga gaacctctgg ttccaggcca gccccttggg gaccctggta accccagccc 180
caagccagga ggacgactgt gtctttgggc cactgctcaa cttccccctc ctgcagggga 240
t 241

<210> 379
<211> 241
<212> DNA
<213> Homo sapiens

<400> 379
tacggagcaa tcgaagaggc atatccacac ttggggtggc tatagggctg gaaaatgctg 60
aagatgactg ctttcactga ggtcaaggat tgtaatattg ccagctttgt aaagccatta 120
aagcagaagt ttcttcagtg atcttctctc taagaaacac catcacctcc atgtgcctta 180
cagaggcccc ctgcgttctg ctgcattgct tttgcgcaat cccttgatga tgaagatggt 240

c 241

<210> 380
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 24, 25, 26, 34, 36, 56, 113, 129, 137, 184, 185, 208, 210, 237, 240
<223> n = A,T,C or G

<400> 380
acgtacacgc agaccgacat gggnnnttca ggcntnagat caaactcaaa acctgnaatg 60
atatccactc tctttttctt aagctcaggg aaatattcca agtagaagtc canaaagtca 120
tcggctaana tgcttcngaa tttgaattca tgcacatagg ccttgaaaaa actgtcaaac 180
tgannctgat cacccaccaa gtgggccntn tatgacacaa agcagaaacc tttctcntan 240
g 241

<210> 381
<211> 241
<212> DNA
<213> Homo sapiens

<400> 381
aggtacaact taatggatta gcttttgggt ttaactgaat atatgaagaa attgggtctg 60
tctaaagaga gggtatttca tatggctttt agttcacttg tttgtatttc atcttgattt 120
ttttctttgg aaaataaagc attctatttg gttcagattt ctcagatttg aaaaaggctc 180
tatctcagat gtagtaaatt atttcctttc agtttgtgaa agcaggattt gactctgaaa 240
g 241

<210> 382
<211> 241
<212> DNA
<213> Homo sapiens

<400> 382
gtactgctat aatcaatacg tctgatagac aggtttatcc actatattga ccctacctct 60
aaaaggattg tcataattta tatgctttat gtttacacct atgatacagt tgccttggaa 120
cacaaaattt ttcattgtaa ttaaaaaaag aagagttgtg cagacagaag aaatcaaatc 180
taagaaaatc acaggagtag ataaatactc tagaattcat ataccttgg aagatgggtt 240
t 241

<210> 383
<211> 241
<212> DNA
<213> Homo sapiens

<400> 383
ggcaggtaca aagtcttctc tttgcttttt ataattttaa agcaaataac acatttaact 60
gtatttaagt ctgtgcaaat aatccttcag aagaaatatc caagattctg tttgcagagg 120
tcattttgtc tctcaaagat gattaaatga gtttgtcttc agataaagtg ctcctgtcca 180
gcagaactca aaaggccttc aagctgttca gtaagtgtag ttcagataag actccgtcat 240

a 241

<210> 384
<211> 241
<212> DNA
<213> Homo sapiens

<400> 384
ggtacacaaa atacacttgc aagcttgctt acagagacct gttaaacaaa gaacagacag 60
attctataaa atcagttata tcaacatata aaggagtgtg attttcagtt tgtttttta 120
agtaaatatg accaaactga ctaaataaga aggcaaaaca aaaaattatg cttccttgac 180
aaggcctttg gagtaaacaa aatgctttaa ggctcctggt gaatggggtt gcaaggatga 240
a 241

<210> 385
<211> 241
<212> DNA
<213> Homo sapiens

<400> 385
ggcaggtcta caatggctct gtcccttctg tggaatcgtt acaccaagag gtctcagtcc 60
tggtccctga ccccacagtg agctgtttag atgatccttc acatcttcct gatcaactgg 120
aagacactcc aatcctcagt gaagactctc tggagccctt caactctctg gcaccaggta 180
ggtttggagg ctatgtccct ttaacttatc catgcagagt agccaaactt tacctgaaag 240
a 241

<210> 386
<211> 241
<212> DNA
<213> Homo sapiens

<400> 386
aggtaccttt ttcctctcca aaggaacagt ttctaaagtt ttctgggggg aaaaaaaact 60
tacatcaaat ttaaaccata tgttaaactg catattagtt gtgttacacc aaaaaattgc 120
ctcagctgat ctacacaagt ttcaaagtca ttaatgcttg atataaattt actcaacatt 180
aaattatctt aaattattaa ttaaaaaaaa aactttctaa gggaaaaata aacaaatgta 240
g 241

<210> 387
<211> 241
<212> DNA
<213> Homo sapiens

<400> 387
accccactgg ccgctgtgga gtatctccac tctcccctcg tgagggccgc tcccaccgac 60
cagtcgaact ttcgtaaatg gagttaatgt gtttccactc ccctttccc ctttctggcc 120
ttttggtcca gaatttcctg gccttccggc atatcctggg agtcctcgac ttccaggaaa 180
gccaattgct ccccgatcac ctttaagacc cggaggacct attggacctg gaaatcctcg 240
t 241

<210> 388
<211> 241
<212> DNA
<213> Homo sapiens

<400> 388
tttgtactct tgtccacagc agagacattg agtataccat tggcatcaat gtcaaaagtg 60
acttcaatct gaggaacacc tcggggtgca ggaggtatgc ctgtgagttc aaacttgcca 120
agcaggttgt tatcctttgt catggcacgc tcgccttcat aaacctgaat aagtacacca 180
ggctggttgt cagaataggt agtgaaggtc tgtgtctgct tggtaggaat ggtggtatta 240
c 241

<210> 389
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 6, 28, 38, 43
<223> n = A,T,C or G

<400> 389
tacctntgtt agtgagcacc ttgtcttntg tgcttatntc ttnaagataa atacatggaa 60
ggatgtgaaa atcggaacac caactatgtg tctcactgca tctaagtgaa gcagccacag 120
ctgtgagagt tttcaaagca gaaagatgct gatgtgacct ctggaattca gacatactga 180
gctatgggtc agaagtgttt tacttaaaaa gcaaacaatc cccaggaaat actgaatagg 240
a 241

<210> 390
<211> 241
<212> DNA
<213> Homo sapiens

<400> 390
gcaggtacat ccacatgttc ctccaaatga cgtttggggt cctgcttgcc aacattcttt 60
attgccagct gttcaggtgt catcttatct tcttcttcta cagccttatt gtaattcttg 120
gctaattcca acatctcttt taccactgat tcattgcgtt tacaatgttc actgtagtcc 180
tgaagtgtca aaccttccat ccaactcttc ttatgcaaat ttagcaacat cttctgttcc 240
a 241

<210> 391
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 2, 10, 14, 22, 23, 25, 40, 50, 57, 59, 65, 71, 72, 73, 76,
77, 78, 82, 83, 84, 95, 98, 100, 101, 102, 107, 148, 152,
155, 158, 163, 169, 170, 172, 180, 182, 192, 193, 198, 200,
202, 203, 206, 207, 208, 213, 214, 218, 220, 224, 225
<223> n = A,T,C or G

<221> misc_feature
<222> 235, 236
<223> n = A,T,C or G

<400> 391
cnggcacaan cttntgtttt tnntnttttt ttttttttta tctttatttn tttttantnt 60
taaanaaaaa nnntannnaa annnggattt aaatnctntn nncagancat taaaactgaa 120
ggggaaaaaa aaaccaaaaa cgagcttntt anttnacntg ggnttgggnn gntgctgatn 180
tnaagaagca annttanan cnngcnnnat ganngagngn tcannttgaa atttnnaccc 240
t 241

<210> 392
<211> 241
<212> DNA
<213> Homo sapiens

<400> 392
gaggtactaa atggtatcct tagattaaaa ttttgtgctt gataacagct gttttttcta 60
cattagaaat aagatgccac acaaggaact acattccaga tttaaagaaa tgaaaggata 120
ccattagtgt gtataacaga ttattgttca tacttgtaaa gcatcttatg tcattgagaa 180
tataaagaac agtgccttag aagacagtga aaggtaagct ctagcttaat gtctatgatt 240
t 241

<210> 393
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 57, 75, 224
<223> n = A,T,C or G

<400> 393
ggcaggtaca taagcataat cagttatgga cagcttcttg tataaattgc tattcancaa 60
tacataaact gcctnaaaga tttatgctta caggtagaca ttcaatttac caataaaaca 120
gcatgttctg aaaatatggg cacattttaa aacatattaa gacagttctg ttaaccataa 180
tagtcccaca gtatgactga gtaataagaa tctacttcaa aagnaaaaaa aaaattaatc 240
a 241

<210> 394
<211> 241
<212> DNA
<213> Homo sapiens

<400> 394
aggtacagca gcagtagatg gctgcaacaa ccttcctcct accccagccc agaaaatatt 60
tctgccccac cccaggatcc gggaccaaaa taaagagcaa gcaggccccc ttcactgagg 120
tgctgggtag ggctcagtgc cacattactg tgctttgaga aagaggaagg ggatttgttt 180
ggcactttaa aaatagagga gtaagcagga ctggagaggc cagagaagat accaaaattg 240
g 241

<210> 395
<211> 241
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<222> 1, 5, 8, 9, 14, 24, 26, 28, 32, 42, 54
<223> n = A,T,C or G

<400> 395
nggcnggnnc caanatatga aatntnanta tnatacatga tnaaaagctt tatntatttt 60
agtgagtaat taagtttaca ctgtgaataa ggattaattc ccagatgacc atctacagtt 120
actaccacat agagggtata cacggatgga tcgattacaa gaatataaaa cttattttcc 180
ttcctgtatc cacatttctt tgcaatgtga atttgcaggc cctctcaaga agtggagtct 240
a 241

<210> 396
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 26
<223> n = A,T,C or G

<400> 396
gaggtacacc ttgaatgaca atgctnggag ccccccctgtg gtcatcgacg cctccactgc 60
cattgatgca ccatccaacc tgcgtttcct ggccaccaca cccaattcct tgctggtatc 120
atggcagccg ccacgtgcca ggattaccgg ctacatcatc aagtatgaga agcctgggtc 180
tcctcccaga gaagtggtcc ctcggccccg ccctggtgtc acagaggcta ctattactgg 240
c 241

<210> 397
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 90
<223> n = A,T,C or G

<400> 397
ggcaggtacc agcaggggga tgtgtttctg gggaattgtg gctctggaag cttcacggtt 60
tcccagaatg tggaaaatat atctgtgcan gatagaaatc ctgcccagag gctgtttctg 120
tctcatttga gctctccttc atgtggcaga gctgactgtg gcggtttagg agcctacatt 180
ttagaaaagc ttacctcaaa gttctgcatt gagcctgagc actggaaagg agataaaata 240
a 241

<210> 398
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 3, 11, 22, 27, 38, 41, 53, 59, 63, 69, 77, 78, 94, 131, 133,
137, 149, 154, 162, 166, 167, 172, 175, 176, 179, 191, 230

<223> n = A,T,C or G

<400> 398
gangtgacca ngacatcacc tnacacntgg aaagcganga nttgaatggt gcntacaang 60
ccntacccnt tgcccannac ctgaacgcgc cttntgattg ggacagccgt gggaaggaca 120
gttatgaaac nantcanctg gatgaccana gtgntgaaac cnacanncac angcnntcna 180
cattatataa ncggaaagct aatgatgaga gcaatgatca ttccgatgtn attgatagtc 240
a 241

<210> 399
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 212, 226
<223> n = A,T,C or G

<400> 399
cagagtgaga tgggagtggg agggccaatc tgatacagaa gggggtgaag ggtagggccc 60
ctgagcagcc cacccttac cctgacgaag gcaatcctcc tctggaatgt ctcttccctc 120
ttcagtctgg gttctgcctc agccacgaac tgggaaggag tgaggaacat cccaacggca 180
atgagagtat cccagtgact ccaaacagga angaatcagt gttcanaaag tcagggccct 240
t 241

<210> 400
<211> 241
<212> DNA
<213> Homo sapiens

<400> 400
ggtactcttg ctcttttagc tagagtgtat gtgaaaataa agaaatacat cattgtattc 60
acaaccatgt gtcttcattt ataacttttt gtttaaaaaa ttttttagttc aagtttagtt 120
cattgatatt atcctctgaa tgcagttaag gctgggcaga aattctactc atgtgacatc 180
tgccacaggt ctattttgaa gcttttcttc taatgggcaa tgtttgtcct taccaggatt 240
t 241

<210> 401
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 1, 2
<223> n = A,T,C or G

<400> 401
nncaggtact ttgtagagca gagagaggct ttggttcctc ctttcttcaa tcacgtggag 60
atgtgtcatc acctgggatt tcatctgggc cgccttttct gggtcaacag ccaacacatg 120
ctggtaatga cggatggtat gtaagcgatc tttgttctca gcacggacat aacgccgtaa 180
ggcctggaga atgcgatgag gccgtggcgg gtcagactgc aaggcagcca ggtagttctc 240
c 241

<210> 402
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 26, 27
<223> n = A,T,C or G

<400> 402
ggcaggtcca aaaaaaacct aaaaannngtt tcaggaatgt agagaaatat ccaacttaaa 60
tagcgaaaaa gtgcaccata attactgctg cactgcagtc atttctgcaa ttcccatgtt 120
tcttaaataa ctatcttgtc agataacaca caatataaag agcaattatg aaaaacagac 180
atttacatat acttctaaag tcttattggg aatatcctgt ttggccattg ggataaccaa 240
t 241

<210> 403
<211> 241
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 49
<223> n = A,T,C or G

<400> 403
aggtgttaac tacccgctcc gagacgggat tgatgacgag tcctatgang ccattttcaa 60
gccggtcatg tccaaagtaa tggagatgtt ccagcctagt gcggtggtct tacagtgtgg 120
ctcagactcc ctatctgggg atcggttagg ttgcttcaat ctaactatca aaggacacgc 180
caagtgtgtg gaatttgtca agagctttaa cctgcctatg ctgatgctgg gaggcggtgg 240
t 241

<210> 404
<211> 241
<212> DNA
<213> Homo sapiens

<400> 404
caggtactgc aacccataaa atactgtttc ctcatatttc accttcctta atttggagtt 60
ttctgtcttc ttttcacggc attcaaagta ggaataaact ttgcttgtgt tgggtggata 120
ttgtttatag tgagtaacct tgtaggagtc ggtggccagg aggatgttga actcggcttc 180
tgccgcagga ttcatctcgg gccggaggac aaggggcccg cgcgccgcga gctccctgac 240
c 241

<210> 405
<211> 266
<212> DNA
<213> Homo sapiens

<400> 405
ttctgggctg gggagtggag agaaagaagt tgcagggctt acaggaaatc ccagagcctg 60

aggttttctc ccagatttga gaactctaga ttctgcatca ttatctttga gtctatattc 120
tcttgggctg taagaagatg aggaatgtaa taggtctgcc ccaagccttt catgccttct 180
gtaccaagct tgtttccttg tgcatccttc ccaggctctg gctgcccctt attggagaat 240
gtgatttcca agacaatcaa tccaca 266

<210> 406
<211> 231
<212> DNA
<213> Homo sapiens

<400> 406
ttggtgaaga accattcctc ggcatccttg cggttcttct ctgccatctt ctcatactgg 60
tcacgcatct cgttcagaat gcggctcagg tccacgccag gtgcagcgtc catctccaca 120
ttgacatctc cacccacctg gcctctcagg gcattcatct cctcctcgtg gttcttcttc 180
aggtaggcca gctcctcctt caggctctca atctgcatct ccaggtcagc t 231

<210> 407
<211> 266
<212> DNA
<213> Homo sapiens

<400> 407
cagcatcatt gtttataatc agaaactctg gtccttctgt ctggtggcac ttagagtctt 60
ttgtgccata atgcagcagt atggagggag gattttatgg agaaatgggg atagtcttca 120
tgaccacaaa taaataaagg aaaactaagc tgcattgtgg gttttgaaaa ggttattata 180
cttcttaaca attctttttt tcagggactt ttctagctgt atgactgtta cttgaccttc 240
tttgaaaagc attcccaaaa tgctct 266

<210> 408
<211> 261
<212> DNA
<213> Homo sapiens

<400> 408
ctgtgtcagc gagcctcggt acactgattt ccgatcaaaa gaatcatcat ctttaccttg 60
acttttcagg gaattactga actttcttct cagaagatag ggcacagcca ttgccttggc 120
ctcacttgaa gggtctgcat ttgggtcctc tggtctcttg ccaagtttcc cagccactcg 180
agggagtaat atctggaggg caaagaagag acttatgtta ttgttgaacc tccagccaca 240
gggaggagca tgggcatggg t 261

<210> 409
<211> 266
<212> DNA
<213> Homo sapiens

<400> 409
gctgacagta atacactgcc acatcttcag cctgcaggct gctgatggtg agagtgaaat 60
ctgtcccaga cccgctgcca ctgaatcggt cagggatccc ggattcccgg gtagatgccc 120
agtaaatgag cagtttagga ggctgtcctg gtttctgctg gtaccaagct aagtagttct 180
tattgttgga gctgtctaaa acactctggc tggtcttgca gttgatggtg gccctctcgc 240
ccagagacac agccagggag tgtgga 266

<210> 410
<211> 181

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 9, 17, 24, 26, 65, 97, 98, 99, 100, 103, 105, 106, 107, 108,
120, 121, 123, 142, 145, 149, 162, 177
<223> n = A,T,C or G

<400> 410
caaaaggtnc tttttgntca aaancnattt ttattccttg atatttttct ttttttttt 60
tttgnggatg gggacttgtg aatttttcta aaggggnnnn ttnannnngg aagaaaaccn 120
ngntccggtt ccagccaaac cngtngctna ctttccacct tntttccacc tccctcnggt 180
t 181

<210> 411
<211> 261
<212> DNA
<213> Homo sapiens

<400> 411
gcccctgcag tacttggccg atgtggacac ctctgatgag gaaagcatcc gggctcacgt 60
gatggcctcc caccattcca agcggagagg ccgggcgtct tctgagagtc agggtctagg 120
tgctggagtg cgcacggagg ccgatgtaga ggaggaggcc ctgaggagga agctggagga 180
gctggccagc aacgtcagtg accaggagac ctcgtccgag gaggaggaag ccaaggacga 240
aaaggcagag cccaacaggg a 261

<210> 412
<211> 171
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 1, 6, 53, 79, 91, 96, 114, 132
<223> n = A,T,C or G

<400> 412
nttttntctt tacaattcag tcttcaacaa cttgagagct ttcttcatgt tgncaagcaa 60
cagagctgta tctgcaggnt cgtaagcata nagacngttt gaatatcttc cagngatatc 120
ggctctaact gncagagatg ggtcaacaaa cataatcctg gggacatact g 171

<210> 413
<211> 266
<212> DNA
<213> Homo sapiens

<400> 413
ttaggaccaa agatagcatc aactgtattt gaaggaactg tagtttgcgc attttatgac 60
atttttataa agtactgtaa ttctttcatt gaggggctat gtgatggaga cagactaact 120
cattttgtta tttgcattaa aattattttg ggtctctgtt caaatgagtt tggagaatgc 180
ttgacttgtt ggtctgtgta aatgtgtata tatatatacc tgaatacagg aacatcggag 240
acctattcac tcccacacac tctgct 266

<210> 414
<211> 266
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 86, 153, 162, 178, 184, 205
<223> n = A,T,C or G

<400> 414
tttgccataa ttgagtgaaa agtggcagat ggcattaact ctgctccgct tcaagctggc 60
tccatgacca ctcaaggcct ccccancctg ttcgtcaagt tgtcctcaag tccaagcaat 120
ggaatccatg tgtttgcaaa aaaagtgtgc tanttttaag gnctttcgta taagaatnaa 180
tganacaatt ttcctaccaa aggangaaca aaaggataaa tataatacaa aatatatgta 240
tatggttgtt tgacaaatta tataac 266

<210> 415
<211> 266
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 37, 103, 223
<223> n = A,T,C or G

<400> 415
cctccatcca gtctattaat tgttgccggg aagctanagt aagtagttcg ccagttaata 60
gtttgcgcaa cgttgttgcc attgctacag gcatcgtggt gtnacgctcg tcgattggta 120
tggcttcatt cagctccggt tcccaacgat caaggcgagt tacatgatcc cccatgttgt 180
gcaaaaaagc ggttagctcc ttcggtcctc cgatcgttgt canaagtaag ttggccgcag 240
tgttatcact catggttatg gcagca 266

<210> 416
<211> 878
<212> DNA
<213> Homo sapiens

<400> 416
cctgacgata gccatggctg taccacttaa ctatgattct attccaactg ttcagaatca 60
tatcacaaaa tgacttgtac acagtagttt acaacgactc ccaagagagg aaaaaaaaaa 120
aaaaagacgc ctcaaaattc actcaacttt tgagacagca atggcaatag gcagcagaga 180
agctatgctg caactgaggg cacatatcat tgaagatgtc acaggagttt aagagacagg 240
ctggaaaaaa tctcatacta agcaaacagt agtatctcat accaagcaaa accaagtagt 300
atctgctcag cctgccgcta acagatctca caatcaccaa ctgtgcttta ggactgtcac 360
caaagtcaga ttcggtgcta accaggtggc atctatgatc aacgtcgccc ctcttattta 420
acaaagggct ctgaaggagg tgttctccaa gcaacaagga gactgcttca gtacaagact 480
ttgcaccttg aattcaattg catcaagtgt ggatagcaaa ataagtatct taccattgaa 540
atatgtgttc agcctaagat tttacccacc agcagaacaa aagtgagggt gagagggatg 600
ggccagtgag gggatggggg agaaaaaaaa atcacaggat taccaccaaa gccttgtttt 660
aaaagggctc ccttcactat tcaggaaggg aagtggaagg agaaattaac caattcctgc 720
cacagcagcc ctttttggct gcttccacaa tagatacttt atggagtggc acagccaacc 780
ctatctgtga cctgccctgc ggataaacac agccaagcag gtttaattag atcaaagaca 840

caaagggcta ttccctcctt tcataacaac gcagacct 878

<210> 417
<211> 514
<212> DNA
<213> Homo sapiens

<400> 417
ttctgacttc tagaagacta aggctggtct gtgtttgctt gtttgcccac ctttggctga 60
tacccagaga acctgggcac ttgctgcctg atgcccaccc ctgccagtca ttcctccatt 120
cacccagcgg gaggtgggat gtgagacagc ccacattgga aaatccagaa aaccgggaac 180
agggatttgc ccttcacaat tctactcccc agatcctctc ccctggacac aggagaccca 240
cagggcagga ccctaagatc tggggaaagg aggtcctgag aaccttgagg taccccttaga 300
tccttttcta cccactttcc tatggaggat tccaagtcac cacttctctc accggcttct 360
accagggtcc aggactaagg cgttttctcc atagcctcaa cattttggga atcttccctt 420
aatcaccctt gctcctcctg ggtgcctgga agatggactg gcagagacct ctttgttgcg 480
ttttgtgctt tgatgccagg aatgccgcct agtt 514

<210> 418
<211> 352
<212> DNA
<213> Homo sapiens

<400> 418
ctgcaccagc gattaccagt ggcattcaaa tactgtgtga ctaaggattt tgtatgctcc 60
ccagtagaac cagaatcaga caggtatgag ctagtcaaca gcaagtcttt gttggattcg 120
agtaggctca ggatctgctg aaggtcggag gagttagtcc ccgcaatcaa gagcctgtct 180
tcctgaagcc cttggtgata ttttgccact cagccaagaa tgaggatgca tccttcagat 240
tctctatgtc ccgaacctgg aacccatcca cgccagcttg cagccaaaac tccagagcat 300
ccttcacctt ggtggaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 352

<210> 419
<211> 344
<212> DNA
<213> Homo sapiens

<400> 419
ctggacacca taatcccttt taagtggctg gatggtcaca cctctcccat tgacaagctg 60
ggttaagtca ataggttgac taggatcaac acgacccaaa tcaataagat actgcagtct 120
attgagactc aaaggcttat actggcgtct gaaactatgt ccttcgttaa acccgtattt 180
tgggattcgg atgtaaaatg gagtctggcc tccctcaaag cccaagcggg gccgggttcc 240
tctttgcctt tctcctttat ggcctctgcc acattttcta cctcttctcc gacctcttgg 300
tcttctctcc ggtttcttgg agccgggatt cggctttaag ttgg 344

<210> 420
<211> 935
<212> DNA
<213> Homo sapiens

<400> 420
cgaaagtcaa cgttaagggg ctcaggtgaa ccatgatgat gaccttctgt tgactttgaa 60
atattggctc ttgtgggtga caaaagccag acaagctgtg gctgtggtcc gattttaaga 120
cgaggttctc aaagatccaa aggagggaaa gggtattgga aacactgtgt atcatctgag 180
acacacgtgt cctcatgatc ttaaatgcct actttaaagc cacctaatac tgcccttcat 240

tgtggtcaga agagatttct acaaaagcac tcagaattct ggaggcagtt gtgattttgc 300
catgtggcag ttggtttgtg gagttgggca ggtgtgaaag ggtaaaactc cacttctgaa 360
tgctgcttct gccccctggg acccagcaca ttgttagacc atcttcttga ctgaaaattc 420
tctcctgatg ctgagccctg caccaccacc ttccttttcc taactatgaa ttgatggcaa 480
agtccactca aaacaaccag ttaagtgctc acgagagagt agtcaagcac ctccagaaag 540
aaaccgggtt tttgttcaca tagcaggaag tgactccctg ggtggtaatt tatcttggaa 600
acacaggtag attggcagaa aaacgggaac atgtaggtac cgcgatgttg gtgcatgtcc 660
attactttgg gataggcttt ctcagtcttt cctcaaatga tagttgagcc agttttccag 720
tggcaattct gagtgacttg cgcttgtctt atggtgtggt caagggacgt tcagaactac 780
ggaaaacttt tactgaaaca gcgaagcaga gtataccggc atgagaggga agatgaacac 840
tcacctatgt accactcttt gacaataaat atagtatttc tcaaaaaaaa aaaaaaaaaa 900
agtaaaaaaa ctgaaatcgc aagtcaaaaa atcca 935

<210> 421
<211> 745
<212> DNA
<213> Homo sapiens

<400> 421
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ggttaacaac agtcccctgc ttggcttcta ttctgaatcc ttttctttca ccatggggtg 180
cctgaagggt ggctgatgca tatggtacaa tggcacccag tgtaaagcag ctacaattag 240
gagtggatgt gttctgtagc atcctattta aataagccta ttttatcctt tggcccgtca 300
actctgttat ctgctgcttg tactggtgcc tgtacttttc tgactctcat tgaccatatt 360
ccacgaccat ggttgtcatc cattacttga tcctacttta catgtctagt ctgtgtggtt 420
ggtggtgaat aggcttcttt ttacatggtg ctgccagccc agctaattaa tggtgcacgt 480
ggacttttag caagcgggct cactggaaga gactgaacct ggcatggaat tcctgaagat 540
gtttggggtt tttttctttc ttaatcgaaa gttaacattg tctgaaaagt tttgttagaa 600
ctactgcgga acctcaaaat cagtagattt ggaagtgatt caaagctaaa ctttttcctt 660
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tttgcttctt tgttagttgt cagac 745

<210> 422
<211> 764
<212> DNA
<213> Homo sapiens

<400> 422
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ggctgcaggc ccagttctca tgctgccctt gggtgggcat ctgttaacag aggagaacgt 180
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catcatcatt attaaacttc agaaaagcag cagccatgtt cagtcaggct catgctgcct 300
cactgcttaa gtgcctgcag gagccgcctg ccaagctccc cttcctacac ctggcacact 360
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tttggagcca agaaacactc tgtgtgactc tacacacact tcaggtggtt tgtgcttcaa 480
agtcattgat gcaacttgaa aggaaacagt ttaatggtgg aaatgaacta ccatttataa 540
cttctgtttt tttattgaga aaatgattca cgaattccaa atcagattgc caggaagaaa 600
taggacgtga cggtactggg ccctgtgatt ctcccagccc ttgcagtccg ctaggtgaga 660
ggaaaagctc tttacttccg cccctggcag ggacttctgg gttatgggag aaaccagaga 720
tgggaatgag gaaaatatga actacagcag aagcccctgg gcag 764

<210> 423

<211> 1041
<212> DNA
<213> Homo sapiens

<400> 423
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gcctttccag gatgggggtc ttttctgctc ccagcggata gtgaaacccc tgtctgcacc 180
tggttgggcg tgttgctttc ccaaaggttt ttttttagg tccgtcgctg tcttgtggat 240
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cggcaacctg cacctgttca tcaatgccta caacaggtat tgggatgtag ttcagccaca 480
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gcttctggga gtttgtcatt ccaaggataa ggaggacctg aacatggcct ttgcctaagg 900
cgtggccctc tcaaccagca ctaggtgctt atctggagct cagctagggg aggagacagc 960
tcagggccat tggtgtcagc cagagactct gtaatcttcc agggagctcg ctcaacctgc 1020
tgagctcgct ctgccacgca c 1041

<210> 424
<211> 1288
<212> DNA
<213> Homo sapiens

<400> 424
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ggacccaagc gaaaaaggta tctcaagact aacggccgga atctggaggc ccatgaccca 180
gaacccagga aggatagaag cttgaagacc tggggaaatc ccaagatgag aaccctaaac 240
cctacctctt ttctattgtt tacacttctt actcttagat atttccagtt ctcctgttta 300
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cagtattatg cctgggccag tcttgagcca gctttaaatc acagctttta cctatttgtt 420
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ccaaaatcca gtcagtatct aatctggctt ttgttaactt ccctcaggag cagacattca 540
tataggtgat actgtatttc agtcctttct tttgacccca gaagccctag actgagaaga 600
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aagataaatg gaagactctt gaacttgtga actgatgtga aatgcagaat ctcttttgag 1140
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cttaagccat ctagatgtca caattgaaac aaactgggga gttggttgct attgtaaaat 1260
aaaatatact gttttgaaaa aaaaaaac 1288

<210> 425

<211> 446
<212> DNA
<213> Homo sapiens

<400> 425
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gcctaacatc ttccacaagg atcccgatgt gaacatgctg cacgtgtttg ttctgggcga 120
atggcagccc atcgagtacg gcaagaagaa gctgaaatac ctgccctaca atcaccagca 180
cgaatacttc ttcctgattg ggccgccgct gctcatcccc atgtatttcc agtaccagat 240
catcatgacc atgatcgtcc ataagaactg ggtggacctg gcctgggccg tcagctacta 300
catccggttc ttcatcacct acatcccttt ctacggcatc ctgggagccc tccttttcct 360
caacttcatc aggttcctgg agagccactg gtttgtgtgg gtcacacaga tgaatcacat 420
cgtcatggag attgaccagg aggacc 446

<210> 426
<211> 874
<212> DNA
<213> Homo sapiens

<400> 426
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acattctaca atggaaactt ttattaaatg ctgcatgtac tgtgctatgg accacgcaca 120
tacagccatg ctgtttcaga agacttgaaa tgccattgat agtttaaaaa ctctacaccc 180
gatggagaat cgaggaagac aatttaatgt ttcatctgaa tccagaggtg catcaaatta 240
aatgacagct ccacttggca aataatagct gttacttgat ggtatccaag aagaaatggt 300
tggtgatgga taaattcaga aatgcttccc caaaggtggg tggtttttaa aaagttttca 360
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tccagagcag caatggcctt tcctgtaaca ggaaaaaagc ctcctgctat tcccaagaac 720
cctcgtaatg gcaaaactcc ccaaatgaca cccaggacca cagcaatgat ctgtcggaac 780
cagtagatca catctaaaaa ttcatcctta tcctcccagg ccgcgtcgct ccgcagcacc 840
ttactccaga cggagacttt gagggccccg ttgg 874

<210> 427
<211> 638
<212> DNA
<213> Homo sapiens

<400> 427
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ttgatttttc ttcttgaaag agtaaggttt acctgttaca ttttcaagtt aattcatgta 120
aaaaatgata gtgattttga tgtaatttat ctcttgtttg aatctgtcat tcaaaggcca 180
ataatttaag ttgctatcag ctgatattag tagctttgca accctgatag agtaaataaa 240
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tggatgaaaa cttgcataga attctgatta aatagtgggt ctgtttcaca tgtgcagttt 420
gaagtattta aataaccact cctttcacag tttattttct tctcaagcgt tttcaagatc 480
tagcatgtgg attttaaaag atttgccctc attaacaaga ataacattta aaggagattg 540
tttcaaaata tttttgcaaa ttgagataag gacagaaaga ttgagaaaca ttgtatattt 600
tgcaaaaaca agatgtttgt agctgtttca gagagagt 638

<210> 428
<211> 535
<212> DNA
<213> Homo sapiens

<400> 428
acaagatgat tcttcctcct caatttgaca gatcaaagaa gtatcccttg ctaattcaag 60
tgtatggtgg tccctgcagt cagagtgtaa ggtctgtatt tgctgttaat tggatatctt 120
atcttgcaag taaggaaggg atggtcattg ccttggtgga tggtcgagga acagctttcc 180
aaggtgacaa actcctctat gcagtgtatc gaaagctggg tgtttatgaa gttgaagacc 240
agattacagc tgtcagaaaa ttcatagaaa tgggtttcat tgatgaaaaa agaatagcca 300
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ttttcaaatg tggtatagca gtggctccag tctccagctg ggaatattac gcgtctgtct 420
acacagagag attcatgggt ctcccaacaa aggatgataa tcttgagcac tataagaatt 480
caactgtgat ggcaagagca gaatatttca gaaatgtaga ctatcttctc atcca 535

<210> 429
<211> 675
<212> DNA
<213> Homo sapiens

<400> 429
actattttca accctgagca ttaacactgc ataccaaggg ggggtgggtc aagaagctgg 60
ttagatcgaa gcacaagcac aagccactga tattctctat gtgatcaggt ttttacaaaa 120
aaatacatag ttttcaataa ataatgctta attttacaac tttgatacag caatgtcata 180
caccgtttca acacactaca ctctgcatgc tagatagtct acgagaagac gaaactttgc 240
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aaaaaggtcc cccccacaaa ccactcagac ttctacacaa aagggttttt cagcttttct 420
gctcccaaac ctggagtggc taagaaagta agtttcatgt ggccttggaa aatacacact 480
tgttaacagt gtcatgctga aaactgctct aaaacatcag gtggttctgt cctggtggcc 540
gtcacgaagc attatgggat gccataacca ctaggagtcc caaaccggaa aaaataggcc 600
tccgttttaa aacagtcaat tcaaaaaagg tgtcacagaa caaatgcaaa agactcttaa 660
acccacaaca tatgt 675

<210> 430
<211> 434
<212> DNA
<213> Homo sapiens

<400> 430
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catcagaaga ttcatcctca tggaggaaga aggcttcaaa cgtgaatggg taggagaagt 120
gagccacctt gtccattgcc agggacttgg tggtgcaggt ctgtgttact cctgagagct 180
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cacctgggac agtcatctca aagtcggtgc ctacgaggct gctgagatac tccttgtgcc 360
ggccataaag atccttgaac actcgccgtt cccgctcctc ctcctccggc tgtgcgtggg 420
gggaaacatt gtcg 434

<210> 431
<211> 581
<212> DNA
<213> Homo sapiens

<400> 431
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ggccacgagt atccagctcc aagcccaagt gaggcgggga gtcaacttcc ccatgattgc 120
caagtgacca agaccagaag cagggacgat taggctagtt ctgcggcaag gtgaactgga 180
gaccctgtct ctgccctcct tccctggcct gtcccacaga catcccgttg tttaacccac 240
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caagcaccac tggatggctc tggagccagg ggacttctat gcacatacaa ccaacatcac 540
cccactctgc tcatctgtgc ctccaccctg aacagcagag t 581

<210> 432
<211> 532
<212> DNA
<213> Homo sapiens

<400> 432
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ctgcataact ggaagaagag attcttcagt atatgacagg taatgttgta gagttggtgt 240
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<210> 433
<211> 531
<212> DNA
<213> Homo sapiens

<400> 433
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acactacagt ggtttagaaa ttactaattt tacttctaag tcattcataa accttgtcta 120
tgaaatgact tcttaaatat ttagttgata gactgctaca ggtaataggg acttagcaag 180
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ccttgagatc tgtggtggtc ttcaaaatgg tggccagcca gatcaaggat gtagtatctc 360
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acttatagat tgaaatttcc taatttattc taaattttaa gtggttcttt ggttccagtg 480
ctttatgttg ttgttgtttt tggatggtgt tacatattat atgttctaga a 531

<210> 434
<211> 530
<212> DNA
<213> Homo sapiens

<400> 434
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agaagttgca ctagctttat cagtgaagga acttccaaca gtcaccacta atgtgcagaa 120
ctctcaagat aaaagcattg aaaaacatgg cagtagtaaa atagaaacaa tgaataagtc 180

tcctcatatc tctaattgca gtgtagccag tgattattta gatttggata agattactgt 240
ggaagatgat gttggtggtg ttcaagggaa aagaaaagca gcatctaaag ctgcagcaca 300
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ctttgcacct ggtgaagatt ctgaggatga ttctgatttt tgtgagagtg aggataatga 420
cgaagacttc tctatgagaa aaagtaaagt taaagaaatt aaaaagaaag aagtgaaggt 480
aaaatcccca gtagaaaaga aagagaagaa atctaaatcc aaatgtaatg 530

<210> 435
<211> 677
<212> DNA
<213> Homo sapiens

<400> 435
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tccaaaatca tttataaaat gtatttggct ttggaatcca caggacttca aacaagcaaa 180
gtttcactgc agatagtcac aaagatgcag atacactgaa atacttaaga gccttattaa 240
tgatttttgt tattttggat cttctgtttt tttcttatta tggtccgaag cctccttaat 300
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atggctcctt catcaatgtt catacctgaa ttctcttcat tgccagggaa aagtttttc 660
catgctttgg ttatggt 677

<210> 436
<211> 573
<212> DNA
<213> Homo sapiens

<400> 436
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taaggataaa atttggccag ttgacagatt ctgtttccag cagtttttac agcaacagtg 180
gagtgcttca gtattgtgtt cctgtaaatt taattttgat ccgcaatcat ttggtataca 240
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gcaaatacag tagggtagtt tagttcttta cacagaacat gataaactac acctgttgat 420
gtcaccgtct gtcaatgaat attatagaag gtatgaaggt gtaattacca taataacaaa 480
acaccctgtc tttagggctg acctttcgtc ctttgacctc ctcagcctcc attcccatct 540
tcgctcagac tgcaagtatg tttgtattaa tgt 573

<210> 437
<211> 645
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 605
<223> n = A,T,C or G

<400> 437

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aggactgcat aatagatcac cacaatcata acatcttagg accacagaca tttatgagat 180
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tctggctgca atcaaggtgt cagctgggct gaattttcat ttggaatctt gactgggaaa 300
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taatttccct actgatgagc caaacactaa ctgattttag agcttaacta catctgcaaa 600
attcngttca ccagaggcaa gtcatattca gggaaggaga agtgt 645

<210> 438
<211> 485
<212> DNA
<213> Homo sapiens

<400> 438
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tcccaggtag aacagcagca gctcatcact gttgaaaagg ctttggcaat tctttctcag 180
cctacaccct cacttgttgt ggatcatgag cgattaaaaa atcttttgaa gactgttgtt 240
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tgtatttatc ggcatcgcaa ggaccatgat aaaacatcac ttattcagaa aatggagcaa 360
gaggtagaaa acttcagttg ttccagatga tgatgtcatg gtatcgagta ttctttatat 420
tcagttccta tttaagtcat ttttgtcatg tccgcctaat tgatgtagta tgaaaccctg 480
catct 485

<210> 439
<211> 533
<212> DNA
<213> Homo sapiens

<400> 439
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aggttcaaca gtatggctcc aaatgatgaa atttcattct gattttctgg ctgaagacta 120
ttctgtttgt gtatgtccac cacagttact ttatcccttc atctgtggat gggcagaatg 180
aaacatatat ggaaatgttc tgtgcaataa aaacagcagt ggtaacacag atgtaggctc 240
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gtttttgcct cctgctggtc atgtgctttc acacatcaag agaggacatt taacatttga 360
gccacagtgt catttgctgt tgtctgatgg ttggttggca gagaatttga actggagatg 420
aactttatta tccaggacgc tgagagtata acatgcatga cagagctttt agagcactgt 480
gatgtaacat gtcaagcaga aatagggagc atgtttacag ccattctatg aaa 533

<210> 440
<211> 341
<212> DNA
<213> Homo sapiens

<400> 440
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cactctcaca ctcgcaccca gaattgtcaa agatacagat tgtaaaaatc tacgatccct 120
cagtctcact cacaaaaaat aaaatctcat gtccccaacg aacccagagt cagacgacag 180
ctggagcatt ggcagggaca gtcagaaagg agacaagtga aaacggtcag atggacacag 240

gcggaggaga aaagacagag ggagagagac catcgggaac aatcagaggg gccgagacga 300
tcagaaaagg gtcagcccga gacaggctga gccagagttt c 341

<210> 441
<211> 572
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 53, 84, 132, 138, 148
<223> n = A,T,C or G

<400> 441
aagtttgggg ataatttatt atgcagcaag agataataca caggacttct canagcactt 60
aatatgttaa tataaatctc caanaaaaaa gatatacaat gaaacattcc tcttagttat 120
ctggccaagg anactttntt tttttganaa tattcttcaa aaagctgatc taatgatatg 180
gctctggtcc tacaattcca tgtaacttct aaccttgatt ttatctcatg agcaaatcat 240
ttatccttcc agaacctcaa cttttccctt ttacaaagta gaaataaacc atctgccttt 300
acataaatca ttaatacagc cctggatggg cagattctga gctatttttg gctgggggt 360
gggaaatagc ctgtggaggt cctaaaaaga tctacggggc tcgagatggt tctctgcaag 420
gtagcaggtg ggctcagggc ccatttcagt ctttgttccc caggccattt ccacaaaatg 480
gtgagaaata gtgtcttctt ttagcttgct cataactcaa agatgggggg catggacctg 540
ggcctttcta ggctagggca tgaacctcct cc 572

<210> 442
<211> 379
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 34, 67
<223> n = A,T,C or G

<400> 442
tcccagctgc actgcttaca cgtcttcctt cgtnttcacc taccccgagg ctgactcctt 60
ccccagntgt gcagctgccc accgcaaggg cagcagcagc aatgagcctt cctctgactc 120
gctcagctca cccacgctgc tggccctgtg agggggcagg gaaggggagg cagccggcac 180
ccacaagtgc cactgcccga gctggtgcat tacagagagg agaaacacat cttccctaga 240
gggttcctgt agacctaggg aggaccttat ctgtgcgtga aacacaccag gctgtgggcc 300
tcaaggactt gaaagcatcc atgtgtggac tcaagtcctt acctcttccg gagatgtagc 360
aaaacgcatg gagtgtgta 379

<210> 443
<211> 511
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 444
<223> n = A,T,C or G

<400> 443
acatgccccc aaaggctcgc ttcattgcta cgattctcta cttaaatcca cattcacagc 60
tattgcctca gaccctctgg aggaggggcc aggggttagc tggctttgaa tagcatgtag 120
agcacaggca gtgtggccac aaatgtcaca caggtgacca gggtgctata gatggtgttc 180
ctgttgactt gggcttctag tctctgctcc gtgtctgaca gtgccaagat catgctcccc 240
tgctccagca agaagctggg catagccccg tctgctggtt ccaccaggcc tgggtgtgct 300
gcagacttta caagctgaac caccccagcc atttggctac aagtcttttc taggccatca 360
agctgctctc gtaagccttc tagacatgaa tggacttgcc tggaatgact aagctgctct 420
ttcaaggcag ctgaaaggac atcnacatct ctgtctctgg tcgggggact acctgcctgt 480
gacccagagt cctgccctgg cccagcagca t 511

<210> 444
<211> 612
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 547
<223> n = A,T,C or G

<400> 444
acaggaagaa ttctacagtt aatctatcac agtgttccag caaagcatat gttgaaaact 60
acagttttca atctaacatc taaattttaa aaagtagcat ttcagcaaca aacaagctca 120
gagaggctca tggcaaaagt gaaataacag aactattgct cagatgtctg caaagtcaag 180
ctgctgccct cagctccgcc cacttgaagg cttaggcaga cacgtaaggt ggcggtggct 240
ccttggcagc accattcaca gtggcatcat catacggagg tagcagcacc gtagtgtcat 300
tgctggtaac ataaaccagg acatcagagg agttcctacc attgatgtat cggtagcagt 360
tccaaacaca gctaatcaag taacccttaa aagtcaagat aatgctaata aacagaagaa 420
taataaggac caaacaggta ggattcactg acatgacatc atctctgtag ggaaaattag 480
gaggcagttg ccgtatgtat tcctgaatgg agtttggata aataagcaca gtgattgcaa 540
ccaacanctt cagggcaaag tcaaagatct ggtaacagaa gaatgggatg atccaggctg 600
cgcgttgctt gt 612

<210> 445
<211> 708
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 643, 676
<223> n = A,T,C or G

<400> 445
accatcctgt tccaacagag ccattgccta ttcctaaatt gaatctgact gggtgtgccc 60
ctcctcggaa cacaacagta gaccttaata gtggaaacat cgatgtgcct cccaacatga 120
caagctgggc cagctttcat aatggtgtgg ctgctggcct gaagatagct cctgcctccc 180
agatcgactc agcttggatt gtttacaata agcccaagca tgctgagttg gccaatgagt 240
atgctggctt tctcatggct ctgggtttga atgggcacct taccaagctg gcgactctca 300
atatccatga ctacttgacc aagggccatg aaatgacaag cattggactg ctacttggtg 360
tttctgctgc aaaactaggc accatggata tgtctattac tcggcttgtt agcattcgca 420
ttcctgctct cttaccccca acgtccacag agttggatgt tcctcacaat gtccaagtgg 480
ctgcagtggt tggcattggc cttgtatatc aagggacagc tcacagacat actgcagaag 540

tcctgttggc tgagatagga cggcctcctg gtcctgaaat ggaatactgc actgacagag 600
agtcatactc cttagctgct ggcttggccc tgggcatggt ctncttgggg catggcagca 660
atttgatagg tatgtntgat ctcaatgtgc ctgagcagct ctatcagt 708

<210> 446
<211> 612
<212> DNA
<213> Homo sapiens

<400> 446
acaagcaacg cgcagcctgg atcatcccat tcttctgtta ccagatcttt gactttgccc 60
tgaacatgtt ggttgcaatc actgtgctta tttatccaaa ctccattcag gaatacatac 120
ggcaactgcc tcctaatttt ccctacagag atgatgtcat gtcagtgaat cctacctgtt 180
tggtccttat tattcttctg tttattagca ttatcttgac ttttaagggt tacttgatta 240
gctgtgtttg gaactgctac cgatacatca atggtaggaa ctcctctgat gtcctggttt 300
atgttaccag caatgacact acggtgctgc taccccgta tgatgatgcc actgtgaatg 360
gtgctgccaa ggagccaccg ccaccttacg tgtctgccta agccttcaag tgggcggagc 420
tgagggcagc agcttgactt tgcagacatc tgagcaatag ttctgttatt tcacttttgc 480
catgagcctc tctgagcttg tttgttgctg aaatgctact ttttaaaatt tagatgttag 540
attgaaaact gtagttttca acatatgctt tgctggaaca ctgtgataga ttaactgtag 600
aattcttcct gt 612

<210> 447
<211> 642
<212> DNA
<213> Homo sapiens

<400> 447
actgaaagaa ttaaagtcag aagtcttccc aaaacaaaaa gaactgccca cagagaaaat 60
cctttctgat acttttcatt gctaaaataa aacaggcggg aaatgtggaa aagaaattca 120
acaaaataat gtagcaccag aagaacaagt cctagatgat tcaagttcaa aaggtaagct 180
ccagcaatgt ggaagaggta aagaccaatg tagacaagct gacgaggaat atcttctttt 240
ttggtttct ggaagtagag ttcaggaaaa gcatgaagcc agtaagccag ctgtgatatg 300
tagaaaaact tcatttgaaa tgtcatcagg ttatggggat aagccctcca taagatagtt 360
gggtctgaga tgtagttttc agagatgaga atgaatgtgc cccaaacaca ggcaaaaagg 420
tagaacgcac taagctgacc agattcatta aacttgctgt gttttgtttt ggagaagtgc 480
attcgcctgt taattttatc caacatatac tcttgaatta cggcatgaat aattatcgcc 540
actagcatgt agaagaaaac agtagccaaa tctttgatgc catagtaata aagggacact 600
gattcagtag cttgttcttc tgttgctggg agggtgacat tg 642

<210> 448
<211> 394
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 66
<223> n = A,T,C or G

<400> 448
accagaagac cttagaaaaa ggaggaaagg aggagaggca gataatttgg atgaattcct 60
caaagngttt gaaaatccag aggttcctag agaggaccag caacagcagc atcagcagcg 120
tgatgttatc gatgagccca ttattgaaga gccaagccgc ctccaggagt cagtgatgga 180

ggccagcaga acaaacatag atgagtcagc tatgcctcca ccaccacctc agggagttaa 240
gcgaaaagct ggacaaattg acccagagcc tgtgatgcct cctcagcagg tagagcagat 300
ggaaatacca cctgtagagc ttcccccaga agaacctcca aatatctgtc agctaatacc 360
agagttagaa cttctgccag aaaaagagaa ggag 394

<210> 449
<211> 494
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 66
<223> n = A,T,C or G

<400> 449
acaaaaaaca caaggaatac aacccaatag aaaatagtcc tgggaatgtg gtcagaagca 60
aaggcntgag tgtctttctc aaccgtgcaa aagccgtgtt cttcccggga aaccaggaaa 120
aggatccgct actcaaaaac caagaattta aaggagtttc ttaaatttcg accttgtttc 180
tgaagctcac ttttcagtgc cattgatgtg agatgtgctg gagtggctat taacctttt 240
ttcctaaaga ttattgttaa atagatattg tggtttgggg aagttgaatt ttttataggt 300
taaatgtcat tttagagatg gggagaggga ttatactgca ggcagcttca gccatgttgt 360
gaaactgata aaagcaactt agcaaggctt cttttcatta ttttttatgt ttcacttata 420
aagtcttagg taactagtag gatagaaaca ctgtgtcccg agagtaagga gagaagctac 480
tattgattag agcc 494

<210> 450
<211> 547
<212> DNA
<213> Homo sapiens

<400> 450
actttgggct ccagacttca ctgtccttag gcattgaaac catcacctgg tttgcattct 60
tcatgactga ggttaactta aaacaaaaat ggtaggaaag ctttcctatg cttcgggtaa 120
gagacaaatt tgcttttgta gaattggtgg ctgagaaagg cagacagggc ctgattaaag 180
aagacatttg tcaccactag ccaccaagtt aagttgtgga acccaaaggt gacggccatg 240
gaaacgtaga tcatcagctc tgctaagtag ttaggggaag aaacatattc aaaccagtct 300
ccaaatggga tcctgtggtt acagtgaatg gccactcctg ctttattttt cctgagattg 360
ccgagaataa catggcactt atactgatgg gcagatgacc agatgaacat catcatccca 420
agaatatgga accaccgtgc ttgcatcaat agatttttcc ctgttatgta ggcattcctg 480
ccatccattg gcacttggct cagcacagtt aggccaacaa ggacataata gacaagtcca 540
aaacagt 547

<210> 451
<211> 384
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 8, 9, 19, 41
<223> n = A,T,C or G

<400> 451

actacttnnt ggttaaaang ccactggtag agtcatctga ntgtaaacaa tgtccctgca 60
ctgctggaaa aatccactgg ctcccaagaa aagaaaatgg tctgaagcct ctgttgtggc 120
tctcacaact catctttccc taagtcatca agctccacat cactgaggtc aatgtcatcc 180
tccacgggaa gctcgccatc cctgccgtcc caaggctctc tctcaacgat ggtagggaaa 240
gccccgcctc ctacaggtgc cgtggagcca cgcccaaaag agagctccct gagaaactcg 300
ttgatgcctt gctcactgaa ggagcctttt agcagagcaa atttcatctt gcgtgcattg 360
atggcggcca tggcggggta ccca 384

<210> 452
<211> 381
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 291, 341, 368
<223> n = A,T,C or G

<400> 452
actctaaagt tgccactctc acaggggtca gtgataccca ctgaacctgg caggaacagt 60
cctgcagcca gaatctgcaa gcagcgcctg tatgcaacgt ttagggccaa aggctgtctg 120
gtggggttgt tcatcacagc ataatggcct agtaggtcaa ggatccaggg tgtgaggggc 180
tcaaagccag gaaaacgaat cctcaagtcc ttcagtagtc tgatgagaac tttaactgtg 240
gactgagaag cattttcctc gaaccagcgg gcatgtcgga tggctgctaa ngcactctgc 300
aatactttga tatccaaatg gagttctgga tccagttttc naagattggg tggcactgtt 360
gtaatganaa tcttcactgt a 381

<210> 453
<211> 455
<212> DNA
<213> Homo sapiens

<400> 453
actgtgctaa acagcctata gccaagtttt aaagagttac aggaacaact gctacacatt 60
caaagaacag gcattcactg cagcctcctg atttgacctg atgggaggga caggagaatg 120
agtcactctg ccaccacttt tcctgccttg gatttgtaga ggatttgttt tgctctaatt 180
tgtttttcct atatctgccc tactaaggta cacagtctgg gcactttgaa aatgttaaag 240
tttttaacgt ttgactgaca gaagcagcac ttaaaggctt catgaatcta ttttccaaaa 300
aaagtatgct ttcagtaaaa cattttacca ttttatctaa ctatgcactg acatttttgt 360
tcttcctgaa aaggggattt atgctaacac tgtattttta atgtaaaaat atacgtgtag 420
agatatttta acttcctgag tgacttatac ctcaa 455

<210> 454
<211> 383
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 9
<223> n = A,T,C or G

<400> 454
acagagcanc tttacaagtt gtcacatttc tttataaatt tttttaaagc tacagtttaa 60

tacaaaatga attgcggttt tattacatta ataacctttc acctcagggt tttatgaaga 120
ggaaagggtt ttatgcaaaa gaaagtgcta caattcctaa tcattttaga cactttagga 180
gggggtgaag ttgtatgata aagcagatat tttaattatt tgttatcttt ttgtattgca 240
agaaatttct tgctagtgaa tcaagaaaac atccagattg acagtctaaa atggctactg 300
gtattttagt taattcaaaa atgaaacttt tcagtgattc actttactaa cattctattt 360
gagaaggctt attggtaaag ttt 383

<210> 455
<211> 383
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 10
<223> n = A,T,C or G

<400> 455
actcctttan gacaaggaaa caggtatcag catgatggta gcagaaacct tatcaccaag 60
gtgcaggagc tgacttcttc caaagagttg tggttccggg cagcggtcat tgccgtgccc 120
attgctggag ggctgatttt agtgttgctt attatgttgg ccctgaggat gcttcgaagt 180
gaaaataaga ggctgcagga tcagcggcaa cagatgctct cccgtttgca ctacagcttt 240
cacggacacc attccaaaaa ggggcaggtt gcaaagttag acttggaatg catggtgccg 300
gtcagtgggc acgagaactg ctgtctgacc tgtgataaaa tgagacaagc agacctcagc 360
aacgataaga tcctctcgct tgt 383

<210> 456
<211> 543
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 64
<223> n = A,T,C or G

<400> 456
acaaacattt tacaaaaaag aacattacca atatcagtgg cagtaagggc aagctgaaga 60
atangtagac tgagtttccg ggcaatgtct gtcctcaaag acatccaaac tgcgttcagg 120
cagctgaaac aggcttcttt cccagtgaca agcatatgtg gtcagtaata caaacgatgg 180
taaatgaggc tactacatag gcccagttaa caaactcctc ttctcctcgg gtaggccatg 240
atacaagtgg aactcatcaa ataatttaaa cccaaggcga taacaacact atttcccatc 300
taaactcatt taagccttca caatgtcgca atggattcag ttacttgcaa acgatcccgg 360
gttgtcatac agatacttgt tttttacaca taacgctgtg ccatcccttc cttcactgcc 420
ccagtcaggt ttcctgttgt tggaccgaaa ggggatacat tttagaaatg cttccctcaa 480
gacagaagtg agaaagaaag gagaccctga ggccaggatc tattaaacct ggtgtgtgcg 540
caa 543

<210> 457
<211> 544
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<222> 17
<223> n = A,T,C or G

<400> 457
actggtgcca atattgncat ggtgagctcc tctctaatgt cttccagggc accaatatct 60
gcccatgtca cattagggac agtgacaaag ccttcccttt tggcagaggg ttggactgag 120
gatagagcaa caatgaaatc attcagttca atgcacagtc cttgcatctg ctcctctgag 180
aggggatctt ggtctcttag caaccccagc agcctttgta attcatcctg tgtttcagaa 240
gtgggctcag ttcccagcct ttcctcctgg actcctttag atggcaaatc ttccatttca 300
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gcctctcggc acagtgccat gagatcagca ccaacaaagc ctggagttag gtgtgctaag 420
tgacagaaat caaaagcttg aggaagcctc agttttctgc acaatgtttg aagtattctt 480
tccctggatg cttcatctgg gatacctagg catatttctc ggtcgaacct tcccgcacgt 540
ctca 544

<210> 458
<211> 382
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 5, 23
<223> n = A,T,C or G

<400> 458
acctntaggc tcaacggcag aancttcacc acaaaagcga aatgggcaca ccacagggag 60
aaaactggtt gtcctggatg tttgaaaagt tggtcgttgt catggtgtgt tacttcatcc 120
tatctatcat taactccatg gcacaaagtt atgccaaacg aatccagcag cggttgaact 180
cagaggagaa aactaaataa gtagagaaag ttttaaactg cagaaattgg agtggatggg 240
ttctgcctta aattgggagg actccaagcc gggaaggaaa attccctttt ccaacctgta 300
tcaattttta caacttttt cctgaaagca gtttagtcca tactttgcac tgacatactt 360
tttccttctg tgctaaggta ag 382

<210> 459
<211> 168
<212> DNA
<213> Homo sapiens

<400> 459
ctcgtactct agccaggcac gaaaccatga agtagcctga tccttcttag ccatcctggc 60
cgccttagcg gtagtaactt tgtgttatga atcacatgaa agcatggaat cttatgaact 120
taatcccttc attaacagga gaaatgcaaa taccttcata tcccctca 168

<210> 460
<211> 190
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 4
<223> n = A,T,C or G

<400> 460
acanctgcta ccagggagcc gagagctgac tatcccagcc tcggctaatg tattctacgc 60
catggatgga gcttcacacg atttcctcct gcggcagcgg cgaaggtcct ctactgctac 120
acctggcgtc accagtggcc cgtctgcctc aggaactcct ccgagtgagg gaggaggggg 180
ctcctttccc 190

<210> 461
<211> 495
<212> DNA
<213> Homo sapiens

<400> 461
acagacaggc ttctctgcta tcctccaggc agtgtaatag tcaaggaaaa gggcaacagt 60
attggatcat tccttagaca ctaatcagct ggggaaagag ttcattggca aaagtgtcct 120
cccaagaatg gtttacacca agcagagagg acatgtcact gaatggggaa agggaacccc 180
cgtatccaca gtcactgtaa gcatccagta ggcaggaaga tggctttggg cagtggctgg 240
atgaaagcag atttgagata cccagctccg gaacgaggtc atcttctaca ggttcttcct 300
tcactgagac aatgaattca gggtgatcat tctctgaggg gctgagaggt gcttcctcga 360
ttttcactac cacattagct tggctctctg tctcagaggg tatctctaag actaggggct 420
tggtatatat gtggtcaaaa cgaattagtt cattaatggc ttccagcttg gctgatgacg 480
tccccactga cagag 495

<210> 462
<211> 493
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 68
<223> n = A,T,C or G

<400> 462
acactgaaac ataaatccgc aagtcaccac acatacaaca cccggcagga aaaaaacaaa 60
aacagggngt ttacatgatc cctgtaacag ccatggtctc aaactcagat gcttcctcca 120
tctgccaagt gtgttttgga tacagagcac atcgtggctt ctggggtcac actcagctta 180
ggctgtgggt ccacagagca ctcatctggc tgggctatgg tggtggtggc tctactcaag 240
aagcaaagca gttaccagca cattcaaaca gtgtattgaa catcttttaa atatcaaagt 300
gagaaacaag aaggcaacat aataatgtta tcagaaagat gttaggaagt aaggacagct 360
gtgtaaagct tgaggctgaa aagtagcttg ccagcttcat ttctttggtt tcttgggtag 420
tgggcgccgg aacagcaaga tgtgaggttc tggttcatgg atcatataat ggacccatcc 480
ctgactctgc tga 493

<210> 463
<211> 3681
<212> DNA
<213> Homo sapiens

<400> 463
tccgagctga ttacagacac caaggaagat gctgtaaaga gtcagcagcc acagccctgg 60
ctagctggcc ctgtgggcat ttattagtaa agttttaatg acaaaagctt tgagtcaaca 120
cacccgtggg taattaacct ggtcatcccc accctggaga gccatcctgc ccatgggtga 180
tcaaagaagg aacatctgca ggaacacctg atgaggctgc acccttggcg gaaagaacac 240

ctgacacagc tgaaagcttg gtggaaaaaa cacctgatga ggctgcaccc ttggtggaaa 300
gaacacctga cacggctgaa agcttggtgg aaaaaacacc tgatgaggct gcatccttgg 360
tggagggaac atctgacaaa attcaatgtt tggagaaagc gacatctgga aagttcgaac 420
agtcagcaga agaaacacct agggaaatta cgagtcctgc aaaagaaaca tctgagaaat 480
ttacgtggcc agcaaaagga agacctagga agatcgcatg ggagaaaaaa gaagacacac 540
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gaagacctag gaagatcgca tgggagaaaa aagaaacacc tgtaaagact ggatgcgtgg 660
caagagtaac atctaataaa actaaagttt tggaaaaagg aagatctaag atgattgcat 720
gtcctacaaa agaatcatct acaaaagcaa gtgccaatga tcagaggttc ccatcagaat 780
ccaaacaaga ggaagatgaa gaatattctt gtgattctcg gagtctcttt gagagttctg 840
caaagattca agtgtgtata cctgagtcta tatatcaaaa agtaatggag ataaatagag 900
aagtagaaga gcctcctaag aagccatctg ccttcaagcc tgccattgaa atgcaaaact 960
ctgttccaaa taaagccttt gaattgaaga atgaacaaac attgagagca gatccgatgt 1020
tcccaccaga atccaaacaa aaggactatg aagaaaattc ttgggattct gagagtctct 1080
gtgagactgt ttcacagaag gatgtgtgtt tacccaaggc tacacatcaa aaagaaatag 1140
ataaaataaa tggaaaatta gaagagtctc ctaataaaga tggtcttctg aaggctacct 1200
gcggaatgaa agtttctatt ccaactaaag ccttagaatt gaaggacatg caaactttca 1260
aagcagagcc tccggggaag ccatctgcct tcgagcctgc cactgaaatg caaaagtctg 1320
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tcaacagcaa ttagttcatg cacataagaa agctgacaac aaaagcaaga taacaattga 3240
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atctttactc acaactcatg ctaggaggcc agtcctagca tcaccttatg ttgaaaatct 3480

taccaatagt ctgtgtcaac agaatactta ttttagaaga aaaattcatg atttcttcct 3540
gaagcctaca gacataaaat aacagtgtga agaattactt gttcacgaat tgcataaagc 3600
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tcgctctgtc actcaggctg g 3681

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<211> 1424
<212> DNA
<213> Homo sapiens

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cacccgtggg taattaacct ggtcatcccc accctggaga gccatcctgc ccatgggtga 180
tcaaagaagg aacatctgca ggaacacctg atgaggctgc acccttggcg gaaagaacac 240
ctgacacagc tgaaagcttg gtggaaaaaa cacctgatga ggctgcaccc ttggtggaaa 300
gaacacctga cacggctgaa agcttggtgg aaaaaacacc tgatgaggct gcatccttgg 360
tggagggaac atctgacaaa attcaatgtt tggagaaagc gacatctgga aagttcgaac 420
agtcagcaga agaaacacct agggaaatta cgagtcctgc aaaagaaaca tctgagaaat 480
ttacgtggcc agcaaaagga agacctagga agatcgcatg ggagaaaaaa gaagacacac 540
ctagggaaat tatgagtccc gcaaaagaaa catctgagaa atttacgtgg gcagcaaaag 600
gaagacctag gaagatcgca tgggagaaaa aagaaacacc tgtaaagact ggatgcgtgg 660
caagagtaac atctaataaa actaaagttt tggaaaaagg aagatctaag atgattgcat 720
gtcctacaaa agaatcatct acaaaagcaa gtgccaatga tcagaggttc ccatcagaat 780
ccaaacaaga ggaagatgaa gaatattctt gtgattctcg gagtctcttt gagagttctg 840
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tcccaccaga atccaaacaa aaggactatg aagaaaattc ttgggattct gagagtctct 1080
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aatatttctc taaactgatg aggagggata tcctctagta gctgaagaaa attacctcct 1260
aaatgcaaac catggaaaaa aagagaagtg caatggtcgt aagttgtatg tctcatcagg 1320
tgttggcaac agactatatt gagagtgctg aaaaggagct gaattattag tttgaattca 1380
agatattgca agacctgaga gaaaaaaaaa aaaaaaaaaa aaaa 1424

<210> 465
<211> 674
<212> DNA
<213> Homo sapiens

<400> 465
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cacacccgtg ggtaattaac ctggtcatcc ccaccctgga gagccatcct gcccatgggt 180
gatcaaagaa ggaacatctg caggaacacc tgatgaggct gcacccttgg cggaaagaac 240
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aagaacacct gacacggctg aaagcttggt ggaaaaaaca cctgatgagg ctgcatcctt 360
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acagtcagca gaagaaacac ctagggaaat tacgagtcct gcaaaagaaa catctgagaa 480
atttacgtgg ccagcaaaag gaagacctag gaagatcgca tgggagaaaa aagatgactc 540
agttaaggca aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 600
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 660
aaaaaaaaaa aaaa 674

<210> 466
<211> 1729
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 11, 1128
<223> n = A,T,C or G

<400> 466
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catctgagaa atttacgtgg ccagcaaaag gaagacctag gaagatcgca tgggagaaaa 120
aagaagacac acctagggaa attatgagtc ccgcaaaaga aacatctgag aaatttacgt 180
gggcagcaaa aggaagacct aggaagatcg catgggagaa aaaagaaaca cctgtaaaga 240
ctggatgcgt ggcaagagta acatctaata aaactaaagt tttggaaaaa ggaagatcta 300
agatgattgc atgtcctaca aaagaatcat ctacaaaagc aagtgccaat gatcagaggt 360
tcccatcaga atccaaacaa gaggaagatg aagaatattc ttgtgattct cggagtctct 420
ttgagagttc tgcaaagatt caagtgtgta tacctgagtc tatatatcaa aaagtaatgg 480
agataaatag agaagtagaa gagcctccta agaagccatc tgccttcaag cctgccattg 540
aaatgcaaaa ctctgttcca aataaagcct ttgaattgaa gaatgaacaa acattgagag 600
cagatccgat gttcccacca gaatccaaac aaaaggacta tgaagaaaat tcttgggatt 660
ctgagagtct ctgtgagact gtttcacaga aggatgtgtg tttacccaag gctacacatc 720
aaaaagaaat agataaaata aatggaaaat tagaagagtc tcctaataaa gatggtcttc 780
tgaaggctac ctgcggaatg aaagtttcta ttccaactaa agccttagaa ttgaaggaca 840
tgcaaacttt caaagcagag cctccgggga agccatctgc cttcgagcct gccactgaaa 900
tgcaaaagtc tgtcccaaat aaagccttgg aattgaaaaa tgaacaaaca ttgagagcag 960
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aaactttcaa agcagagcct cccgagaagc catctgcctt cgagcctgcc attgaaatgc 1260
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cctcctaaat gcaaaccatg gaaaaaaaga gaagtgcaat ggtcataagc tatgtgtctc 1620
atcaggcatt ggcaacagac tatattgtga gtgctgaaga ggagctgaat tactagttta 1680
aattcaagat attccaagac gtgaggaaaa tgagaaaaaa aaaaaaaaa 1729

<210> 467
<211> 1337
<212> DNA
<213> Homo sapiens

<400> 467
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tgcaaacttt caaagcagag cctcccgaga agccatctgc cttcgagcct gccattgaaa 180
tgcaaaagtc tgttccaaat aaagccttgg aattgaagaa tgaacaaaca ttgagagcag 240
atgagatact cccatcagaa tccaaacaaa aggactatga agaaagttct tgggattctg 300
agagtctctg tgagactgtt tcacagaagg atgtgtgttt acccaaggct gcgcatcaaa 360

aagaaataga taaaataaat ggaaaattag aagagtctcc tgataatgat ggttttctga 420
aggctccctg cagaatgaaa gtttctattc caactaaagc cttagaattg atggacatgc 480
aaactttcaa agcagagcct cccgagaagc catctgcctt cgagcctgcc attgaaatgc 540
aaaagtctgt tccaaataaa gccttggaat tgaagaatga acaaacattg agagcagatc 600
agatgttccc ttcagaatca aaacaaaaga aggttgaaga aaattcttgg gattctgaga 660
gtctccgtga gactgtttca cagaaggatg tgtgtgtacc caaggctaca catcaaaaag 720
aaatggataa aataagtgga aaattagaag attcaactag cctatcaaaa atcttggata 780
cagttcattc ttgtgaaaga gcaagggaac ttcaaaaaga tcactgtgaa caacgtacag 840
gaaaaatgga acaaatgaaa aagaagtttt gtgtactgaa aaagaaactg tcagaagcaa 900
aagaaataaa atcacagtta gagaaccaaa aagttaaatg ggaacaagag ctctgcagtg 960
tgagattgac tttaaaccaa gaagaagaga agagaagaaa tgccgatata ttaaatgaaa 1020
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aacaacttga acaggctctc agaatacaag atatagaatt gaagagtgta gaaagtaatt 1140
tgaatcaggt ttctcacact catgaaaatg aaaattatct cttacatgaa aattgcatgt 1200
tgaaaaagga aattgccatg ctaaaactgg aaatagccac actgaaacac caataccagg 1260
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<210> 468
<211> 2307
<212> DNA
<213> Homo sapiens

<400> 468
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tacacatcaa aaagaaatag ataaaataaa tggaaaatta gaagggtctc ctgttaaaga 180
tggtcttctg aaggctaact gcggaatgaa agtttctatt ccaactaaag ccttagaatt 240
gatggacatg caaactttca aagcagagcc tcccgagaag ccatctgcct tcgagcctgc 300
cattgaaatg caaaagtctg ttccaaataa agccttggaa ttgaagaatg aacaaacatt 360
gagagcagat gagatactcc catcagaatc caaacaaaag gactatgaag aaagttcttg 420
ggattctgag agtctctgtg agactgtttc acagaaggat gtgtgtttac ccaaggctac 480
acatcaaaaa gaaatagata aaataaatgg aaaattagaa gagtctcctg ataatgatgg 540
ttttctgaag tctccctgca gaatgaaagt ttctattcca actaaagcct tagaattgat 600
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agcagatcag atgttccctt cagaatcaaa acaaaagaac gttgaagaaa attcttggga 780
ttctgagagt ctccgtgaga ctgtttcaca gaaggatgtg tgtgtaccca aggctacaca 840
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agaagcaaaa gaaataaaat cacagttaga gaaccaaaaa gttaaatggg aacaagagct 1080
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agagaccaac gtgaaacaca gtgtcaaatg aaggaagctg aacacatgta tcaaaacgaa 1740
caagataatg tgaacaaaca cactgaacag caggagtctc tagatcagaa attatttcaa 1800

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catcattcaa tccaaccaga atctcgc                                     2307

<210> 469
<211> 650
<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT
<222> 310, 429, 522
<223> Xaa = Any Amino Acid

<400> 469
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Gly Arg Pro Arg Lys Ile Ala Trp Glu Lys Lys Glu Thr Pro Val Lys
            20                  25                  30
Thr Gly Cys Val Ala Arg Val Thr Ser Asn Lys Thr Lys Val Leu Glu
        35                  40                  45
Lys Gly Arg Ser Lys Met Ile Ala Cys Pro Thr Lys Glu Ser Ser Thr
    50                  55                  60
Lys Ala Ser Ala Asn Asp Gln Arg Phe Pro Ser Glu Ser Lys Gln Glu
65                  70                  75                  80
Glu Asp Glu Glu Tyr Ser Cys Asp Ser Arg Ser Leu Phe Glu Ser Ser
                85                  90                  95
Ala Lys Ile Gln Val Cys Ile Pro Glu Ser Ile Tyr Gln Lys Val Met
            100                 105                 110
Glu Ile Asn Arg Glu Val Glu Glu Pro Pro Lys Lys Pro Ser Ala Phe
        115                 120                 125
Lys Pro Ala Ile Glu Met Gln Asn Ser Val Pro Asn Lys Ala Phe Glu
    130                 135                 140
Leu Lys Asn Glu Gln Thr Leu Arg Ala Asp Pro Met Phe Pro Pro Glu
145                 150                 155                 160
Ser Lys Gln Lys Asp Tyr Glu Glu Asn Ser Trp Asp Ser Glu Ser Leu
                165                 170                 175
Cys Glu Thr Val Ser Gln Lys Asp Val Cys Leu Pro Lys Ala Thr His
            180                 185                 190
Gln Lys Glu Ile Asp Lys Ile Asn Gly Lys Leu Glu Glu Ser Pro Asn
        195                 200                 205
Lys Asp Gly Leu Leu Lys Ala Thr Cys Gly Met Lys Val Ser Ile Pro
    210                 215                 220
Thr Lys Ala Leu Glu Leu Lys Asp Met Gln Thr Phe Lys Ala Glu Pro
225                 230                 235                 240
Pro Gly Lys Pro Ser Ala Phe Glu Pro Ala Thr Glu Met Gln Lys Ser
                245                 250                 255
Val Pro Asn Lys Ala Leu Glu Leu Lys Asn Glu Gln Thr Leu Arg Ala
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            260                 265                 270
Asp Glu Ile Leu Pro Ser Glu Ser Lys Gln Lys Asp Tyr Glu Glu Ser
        275                 280                 285
Ser Trp Asp Ser Glu Ser Leu Cys Glu Thr Val Ser Gln Lys Asp Val
    290                 295                 300
Cys Leu Pro Lys Ala Xaa His Gln Lys Glu Ile Asp Lys Ile Asn Gly
305                 310                 315                 320
Lys Leu Glu Gly Ser Pro Val Lys Asp Gly Leu Leu Lys Ala Asn Cys
                325                 330                 335
Gly Met Lys Val Ser Ile Pro Thr Lys Ala Leu Glu Leu Met Asp Met
            340                 345                 350
Gln Thr Phe Lys Ala Glu Pro Pro Glu Lys Pro Ser Ala Phe Glu Pro
        355                 360                 365
Ala Ile Glu Met Gln Lys Ser Val Pro Asn Lys Ala Leu Glu Leu Lys
    370                 375                 380
Asn Glu Gln Thr Leu Arg Ala Asp Glu Ile Leu Pro Ser Glu Ser Lys
385                 390                 395                 400
Gln Lys Asp Tyr Glu Glu Ser Ser Trp Asp Ser Glu Ser Leu Cys Glu
                405                 410                 415
Thr Val Ser Gln Lys Asp Val Cys Leu Pro Lys Ala Xaa His Gln Lys
            420                 425                 430
Glu Ile Asp Lys Ile Asn Gly Lys Leu Glu Glu Ser Pro Asp Asn Asp
        435                 440                 445
Gly Phe Leu Lys Ala Pro Cys Arg Met Lys Val Ser Ile Pro Thr Lys
    450                 455                 460
Ala Leu Glu Leu Met Asp Met Gln Thr Phe Lys Ala Glu Pro Pro Glu
465                 470                 475                 480
Lys Pro Ser Ala Phe Glu Pro Ala Ile Glu Met Gln Lys Ser Val Pro
                485                 490                 495
Asn Lys Ala Leu Glu Leu Lys Asn Glu Gln Thr Leu Arg Ala Asp Gln
            500                 505                 510
Met Phe Pro Ser Glu Ser Lys Gln Lys Xaa Val Glu Glu Asn Ser Trp
        515                 520                 525
Asp Ser Glu Ser Leu Arg Glu Thr Val Ser Gln Lys Asp Val Cys Val
    530                 535                 540
Pro Lys Ala Thr His Gln Lys Glu Met Asp Lys Ile Ser Gly Lys Leu
545                 550                 555                 560
Glu Asp Ser Thr Ser Leu Ser Lys Ile Leu Asp Thr Val His Ser Cys
                565                 570                 575
Glu Arg Ala Arg Glu Leu Gln Lys Asp His Cys Glu Gln Arg Thr Gly
            580                 585                 590
Lys Met Glu Gln Met Lys Lys Lys Phe Cys Val Leu Lys Lys Lys Leu
        595                 600                 605
Ser Glu Ala Lys Glu Ile Lys Ser Gln Leu Glu Asn Gln Lys Val Lys
    610                 615                 620
Trp Glu Gln Glu Leu Cys Ser Val Arg Phe Leu Thr Leu Met Lys Met
625                 630                 635                 640
Lys Ile Ile Ser Tyr Met Lys Ile Ala Cys
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<210> 470
<211> 228
<212> PRT

<213> Homo sapiens

<400> 470

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Met Ser Pro Ala Lys Glu Thr Ser Glu Lys Phe Thr Trp Ala Ala Lys
 1               5                  10                  15
Gly Arg Pro Arg Lys Ile Ala Trp Glu Lys Lys Glu Thr Pro Val Lys
            20                  25                  30
Thr Gly Cys Val Ala Arg Val Thr Ser Asn Lys Thr Lys Val Leu Glu
        35                  40                  45
Lys Gly Arg Ser Lys Met Ile Ala Cys Pro Thr Lys Glu Ser Ser Thr
    50                  55                  60
Lys Ala Ser Ala Asn Asp Gln Arg Phe Pro Ser Glu Ser Lys Gln Glu
65                  70                  75                  80
Glu Asp Glu Glu Tyr Ser Cys Asp Ser Arg Ser Leu Phe Glu Ser Ser
                85                  90                  95
Ala Lys Ile Gln Val Cys Ile Pro Glu Ser Ile Tyr Gln Lys Val Met
            100                 105                 110
Glu Ile Asn Arg Glu Val Glu Glu Pro Pro Lys Lys Pro Ser Ala Phe
        115                 120                 125
Lys Pro Ala Ile Glu Met Gln Asn Ser Val Pro Asn Lys Ala Phe Glu
    130                 135                 140
Leu Lys Asn Glu Gln Thr Leu Arg Ala Asp Pro Met Phe Pro Pro Glu
145                 150                 155                 160
Ser Lys Gln Lys Asp Tyr Glu Glu Asn Ser Trp Asp Ser Glu Ser Leu
                165                 170                 175
Cys Glu Thr Val Ser Gln Lys Asp Val Cys Leu Pro Lys Ala Thr His
            180                 185                 190
Gln Lys Glu Ile Asp Lys Ile Asn Gly Lys Leu Glu Gly Lys Asn Arg
        195                 200                 205
Phe Leu Phe Lys Asn Gln Leu Thr Glu Tyr Phe Ser Lys Leu Met Arg
    210                 215                 220
Arg Asp Ile Leu
225
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<210> 471
<211> 154
<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT
<222> 148
<223> Xaa = Any Amino Acid

<400> 471

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Trp Trp Lys Lys His Leu Met Arg Leu His Pro Trp Trp Lys Glu His
            20                  25                  30
Leu Thr Arg Leu Lys Ala Trp Trp Lys Lys His Leu Met Arg Leu His
        35                  40                  45
Pro Trp Trp Arg Glu His Leu Thr Lys Phe Asn Val Trp Arg Lys Arg
    50                  55                  60
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His Leu Glu Ser Ser Asn Ser Gln Gln Lys Lys His Leu Gly Lys Leu
65 70 75 80
Arg Val Leu Gln Lys Lys His Leu Arg Asn Leu Arg Gly Gln Gln Lys
85 90 95
Glu Asp Leu Gly Arg Ser His Gly Arg Lys Lys Met Thr Gln Leu Arg
100 105 110
Gln Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys
115 120 125
Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys
130 135 140
Lys Lys Lys Xaa Lys Lys Lys Lys Lys Lys
145 150

<210> 472
<211> 466
<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT
<222> 329
<223> Xaa = Any Amino Acid

<400> 472
Met Ser Pro Ala Lys Glu Thr Ser Glu Lys Phe Thr Trp Ala Ala Lys
1 5 10 15
Gly Arg Pro Arg Lys Ile Ala Trp Glu Lys Lys Glu Thr Pro Val Lys
20 25 30
Thr Gly Cys Val Ala Arg Val Thr Ser Asn Lys Thr Lys Val Leu Glu
35 40 45
Lys Gly Arg Ser Lys Met Ile Ala Cys Pro Thr Lys Glu Ser Ser Thr
50 55 60
Lys Ala Ser Ala Asn Asp Gln Arg Phe Pro Ser Glu Ser Lys Gln Glu
65 70 75 80
Glu Asp Glu Glu Tyr Ser Cys Asp Ser Arg Ser Leu Phe Glu Ser Ser
85 90 95
Ala Lys Ile Gln Val Cys Ile Pro Glu Ser Ile Tyr Gln Lys Val Met
100 105 110
Glu Ile Asn Arg Glu Val Glu Glu Pro Pro Lys Lys Pro Ser Ala Phe
115 120 125
Lys Pro Ala Ile Glu Met Gln Asn Ser Val Pro Asn Lys Ala Phe Glu
130 135 140
Leu Lys Asn Glu Gln Thr Leu Arg Ala Asp Pro Met Phe Pro Pro Glu
145 150 155 160
Ser Lys Gln Lys Asp Tyr Glu Glu Asn Ser Trp Asp Ser Glu Ser Leu
165 170 175
Cys Glu Thr Val Ser Gln Lys Asp Val Cys Leu Pro Lys Ala Thr His
180 185 190
Gln Lys Glu Ile Asp Lys Ile Asn Gly Lys Leu Glu Glu Ser Pro Asn
195 200 205
Lys Asp Gly Leu Leu Lys Ala Thr Cys Gly Met Lys Val Ser Ile Pro
210 215 220
Thr Lys Ala Leu Glu Leu Lys Asp Met Gln Thr Phe Lys Ala Glu Pro

225 230 235 240
Pro Gly Lys Pro Ser Ala Phe Glu Pro Ala Thr Glu Met Gln Lys Ser
245 250 255
Val Pro Asn Lys Ala Leu Glu Leu Lys Asn Glu Gln Thr Leu Arg Ala
260 265 270
Asp Glu Ile Leu Pro Ser Glu Ser Lys Gln Lys Asp Tyr Glu Glu Asn
275 280 285
Ser Trp Asp Thr Glu Ser Leu Cys Glu Thr Val Ser Gln Lys Asp Val
290 295 300
Cys Leu Pro Lys Ala Ala His Gln Lys Glu Ile Asp Lys Ile Asn Gly
305 310 315 320
Lys Leu Glu Gly Ser Pro Gly Lys Xaa Gly Leu Leu Lys Ala Asn Cys
325 330 335
Gly Met Lys Val Ser Ile Pro Thr Lys Ala Leu Glu Leu Met Asp Met
340 345 350
Gln Thr Phe Lys Ala Glu Pro Pro Glu Lys Pro Ser Ala Phe Glu Pro
355 360 365
Ala Ile Glu Met Gln Lys Ser Val Pro Asn Lys Ala Leu Glu Leu Lys
370 375 380
Asn Glu Gln Thr Leu Arg Ala Asp Glu Ile Leu Pro Ser Glu Ser Lys
385 390 395 400
Gln Lys Asp Tyr Glu Glu Ser Ser Trp Asp Ser Glu Ser Leu Cys Glu
405 410 415
Thr Val Ser Gln Lys Asp Val Cys Leu Pro Lys Ala Ala His Gln Lys
420 425 430
Glu Ile Asp Lys Ile Asn Gly Lys Leu Glu Gly Lys Asn Arg Phe Leu
435 440 445
Phe Lys Asn His Leu Thr Lys Tyr Phe Ser Lys Leu Met Arg Lys Asp
450 455 460
Ile Leu
465

<210> 473
<211> 445
<212> PRT
<213> Homo sapiens

<400> 473
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Asp Gly Leu Leu Lys Ala Asn Cys Gly Met Lys Val Ser Ile Pro Thr
20 25 30
Lys Ala Leu Glu Leu Met Asp Met Gln Thr Phe Lys Ala Glu Pro Pro
35 40 45
Glu Lys Pro Ser Ala Phe Glu Pro Ala Ile Glu Met Gln Lys Ser Val
50 55 60
Pro Asn Lys Ala Leu Glu Leu Lys Asn Glu Gln Thr Leu Arg Ala Asp
65 70 75 80
Glu Ile Leu Pro Ser Glu Ser Lys Gln Lys Asp Tyr Glu Glu Ser Ser
85 90 95
Trp Asp Ser Glu Ser Leu Cys Glu Thr Val Ser Gln Lys Asp Val Cys
100 105 110
Leu Pro Lys Ala Ala His Gln Lys Glu Ile Asp Lys Ile Asn Gly Lys

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        115                 120                 125
Leu Glu Glu Ser Pro Asp Asn Asp Gly Phe Leu Lys Ala Pro Cys Arg
    130                 135                 140
Met Lys Val Ser Ile Pro Thr Lys Ala Leu Glu Leu Met Asp Met Gln
145                 150                 155                 160
Thr Phe Lys Ala Glu Pro Pro Glu Lys Pro Ser Ala Phe Glu Pro Ala
                165                 170                 175
Ile Glu Met Gln Lys Ser Val Pro Asn Lys Ala Leu Glu Leu Lys Asn
            180                 185                 190
Glu Gln Thr Leu Arg Ala Asp Gln Met Phe Pro Ser Glu Ser Lys Gln
        195                 200                 205
Lys Lys Val Glu Glu Asn Ser Trp Asp Ser Glu Ser Leu Arg Glu Thr
    210                 215                 220
Val Ser Gln Lys Asp Val Cys Val Pro Lys Ala Thr His Gln Lys Glu
225                 230                 235                 240
Met Asp Lys Ile Ser Gly Lys Leu Glu Asp Ser Thr Ser Leu Ser Lys
                245                 250                 255
Ile Leu Asp Thr Val His Ser Cys Glu Arg Ala Arg Glu Leu Gln Lys
            260                 265                 270
Asp His Cys Glu Gln Arg Thr Gly Lys Met Glu Gln Met Lys Lys Lys
        275                 280                 285
Phe Cys Val Leu Lys Lys Lys Leu Ser Glu Ala Lys Glu Ile Lys Ser
    290                 295                 300
Gln Leu Glu Asn Gln Lys Val Lys Trp Glu Gln Glu Leu Cys Ser Val
305                 310                 315                 320
Arg Leu Thr Leu Asn Gln Glu Glu Glu Lys Arg Arg Asn Ala Asp Ile
                325                 330                 335
Leu Asn Glu Lys Ile Arg Glu Glu Leu Gly Arg Ile Glu Glu Gln His
            340                 345                 350
Arg Lys Glu Leu Glu Val Lys Gln Gln Leu Glu Gln Ala Leu Arg Ile
        355                 360                 365
Gln Asp Ile Glu Leu Lys Ser Val Glu Ser Asn Leu Asn Gln Val Ser
    370                 375                 380
His Thr His Glu Asn Glu Asn Tyr Leu Leu His Glu Asn Cys Met Leu
385                 390                 395                 400
Lys Lys Glu Ile Ala Met Leu Lys Leu Glu Ile Ala Thr Leu Lys His
                405                 410                 415
Gln Tyr Gln Glu Lys Glu Asn Lys Tyr Phe Glu Asp Ile Lys Ile Leu
            420                 425                 430
Lys Glu Lys Asn Ala Glu Leu Gln Met Thr Pro Arg Ala
        435                 440                 445
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<210> 474
<211> 3865
<212> DNA
<213> Homo sapiens

<400> 474
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ctagctggcc ctgtgggcat ttattagtaa agttttaatg acaaaagctt tgagtcaaca 120
cacccgtggg taattaacct ggtcatcccc accctggaga gccatcctgc ccatgggtga 180
tcaaagaagg aacatctgca ggaacacctg atgaggctgc acccttggcg gaaagaacac 240
ctgacacagc tgaaagcttg gtggaaaaaa cacctgatga ggctgcaccc ttggtggaaa 300

gaacacctga cacggctgaa agcttggtgg aaaaaacacc tgatgaggct gcatccttgg 360
tggagggaac atctgacaaa attcaatgtt tggagaaagc gacatctgga aagttcgaac 420
agtcagcaga agaaacacct agggaaatta cgagtcctgc aaaagaaaca tctgagaaat 480
ttacgtggcc agcaaaagga agacctagga agatcgcatg ggagaaaaaa gaagacacac 540
ctagggaaat tatgagtccc gcaaaagaaa catctgagaa atttacgtgg gcagcaaaag 600
gaagacctag gaagatcgca tgggagaaaa aagaaacacc tgtaaagact ggatgcgtgg 660
caagagtaac atctaataaa actaaagttt tggaaaaagg aagatctaag atgattgcat 720
gtcctacaaa agaatcatct acaaaagcaa gtgccaatga tcagaggttc ccatcagaat 780
ccaaacaaga ggaagatgaa gaatattctt gtgattctcg gagtctcttt gagagttctg 840
caaagattca agtgtgtata cctgagtcta tatatcaaaa agtaatggag ataaatagag 900
aagtagaaga gcctcctaag aagccatctg ccttcaagcc tgccattgaa atgcaaaact 960
ctgttccaaa taaagccttt gaattgaaga atgaacaaac attgagagca gatccgatgt 1020
tcccaccaga atccaaacaa aaggactatg aagaaaattc ttgggattct gagagtctct 1080
gtgagactgt ttcacagaag gatgtgtgtt tacccaaggc tacacatcaa aaagaaatag 1140
ataaaataaa tggaaaatta gaagagtctc ctaataaaga tggtcttctg aaggctacct 1200
gcggaatgaa agtttctatt ccaactaaag ccttagaatt gaaggacatg caaactttca 1260
aagcagagcc tccggggaag ccatctgcct tcgagcctgc cactgaaatg caaaagtctg 1320
tcccaaataa agccttggaa ttgaaaaatg aacaaacatt gagagcagat gagatactcc 1380
catcagaatc caaacaaaag gactatgaag aaagttcttg ggattctgag agtctctgtg 1440
agactgtttc acagaaggat gtgtgtttac ccaaggctrc rcatcaaaaa gaaatagata 1500
aaataaatgg aaaattagaa gggtctcctg ttaaagatgg tcttctgaag gctaactgcg 1560
gaatgaaagt ttctattcca actaaagcct tagaattgat ggacatgcaa actttcaaag 1620
cagagcctcc cgagaagcca tctgccttcg agcctgccat tgaaatgcaa aagtctgttc 1680
caaataaagc cttggaattg aagaatgaac aaacattgag agcagatgag atactcccat 1740
cagaatccaa acaaaaggac tatgaagaaa gttcttggga ttctgagagt ctctgtgaga 1800
ctgtttcaca gaaggatgtg tgtttaccca aggctrcrca tcaaaaagaa atagataaaa 1860
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tgaaagtttc tattccaact aaagccttag aattgatgga catgcaaact ttcaaagcag 1980
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ataaagcctt ggaattgaag aatgaacaaa cattgagagc agatcagatg ttcccttcag 2100
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gtggaaaatt agaagattca actagcctat caaaaatctt ggatacagtt cattcttgtg 2280
aaagagcaag ggaacttcaa aaagatcact gtgaacaacg tacaggaaaa atggaacaaa 2340
tgaaaaagaa gttttgtgta ctgaaaaaga aactgtcaga agcaaaagaa ataaaatcac 2400
agttagagaa ccaaaaagtt aaatgggaac aagagctctg cagtgtgaga ttgactttaa 2460
accaagaaga agagaagaga agaaatgccg atatattaaa tgaaaaaatt agggaagaat 2520
taggaagaat cgaagagcag cataggaaag agttagaagt gaaacaacaa cttgaacagg 2580
ctctcagaat acaagatata gaattgaaga gtgtagaaag taatttgaat caggtttctc 2640
acactcatga aaatgaaaat tatctcttac atgaaaattg catgttgaaa aaggaaattg 2700
ccatgctaaa actggaaata gccacactga aacaccaata ccaggaaaag gaaaataaat 2760
actttgagga cattaagatt ttaaaagaaa agaatgctga acttcagatg accctaaaac 2820
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aggcagaaat tgaatcacac catcctagac tggcttctgc tgtacaagac catgatcaaa 3000
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acactgaaca gcaggagtct ctagatcaga aattatttca actacaaagc aaaaatatgt 3360
ggcttcaaca gcaattagtt catgcacata agaaagctga caacaaaagc aagataacaa 3420
ttgatattca ttttcttgag aggaaaatgc aacatcatct cctaaaagag aaaaatgagg 3480
agatatttaa ttacaataac catttaaaaa accgtatata tcaatatgaa aaagagaaag 3540

cagaaacaga aaactcatga gagacaagca gtaagaaact tcttttggag aaacaacaga 3600
ccagatcttt actcacaact catgctagga ggccagtcct agcatcacct tatgttgaaa 3660
atcttaccaa tagtctgtgt caacagaata cttattttag aagaaaaatt catgatttct 3720
tcctgaagcc tacagacata aaataacagt gtgaagaatt acttgttcac gaattgcata 3780
aagctgcaca ggattcccat ctaccctgat gatgcagcag acatcattca atccaaccag 3840
aatctcgctc tgtcactcag gctgg 3865

<210> 475
<211> 1002
<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT
<222> 310, 429, 522
<223> Xaa = Any Amino Acid

<400> 475
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Gly Arg Pro Arg Lys Ile Ala Trp Glu Lys Lys Glu Thr Pro Val Lys
20 25 30
Thr Gly Cys Val Ala Arg Val Thr Ser Asn Lys Thr Lys Val Leu Glu
35 40 45
Lys Gly Arg Ser Lys Met Ile Ala Cys Pro Thr Lys Glu Ser Ser Thr
50 55 60
Lys Ala Ser Ala Asn Asp Gln Arg Phe Pro Ser Glu Ser Lys Gln Glu
65 70 75 80
Glu Asp Glu Glu Tyr Ser Cys Asp Ser Arg Ser Leu Phe Glu Ser Ser
85 90 95
Ala Lys Ile Gln Val Cys Ile Pro Glu Ser Ile Tyr Gln Lys Val Met
100 105 110
Glu Ile Asn Arg Glu Val Glu Glu Pro Pro Lys Lys Pro Ser Ala Phe
115 120 125
Lys Pro Ala Ile Glu Met Gln Asn Ser Val Pro Asn Lys Ala Phe Glu
130 135 140
Leu Lys Asn Glu Gln Thr Leu Arg Ala Asp Pro Met Phe Pro Pro Glu
145 150 155 160
Ser Lys Gln Lys Asp Tyr Glu Glu Asn Ser Trp Asp Ser Glu Ser Leu
165 170 175
Cys Glu Thr Val Ser Gln Lys Asp Val Cys Leu Pro Lys Ala Thr His
180 185 190
Gln Lys Glu Ile Asp Lys Ile Asn Gly Lys Leu Glu Glu Ser Pro Asn
195 200 205
Lys Asp Gly Leu Leu Lys Ala Thr Cys Gly Met Lys Val Ser Ile Pro
210 215 220
Thr Lys Ala Leu Glu Leu Lys Asp Met Gln Thr Phe Lys Ala Glu Pro
225 230 235 240
Pro Gly Lys Pro Ser Ala Phe Glu Pro Ala Thr Glu Met Gln Lys Ser
245 250 255
Val Pro Asn Lys Ala Leu Glu Leu Lys Asn Glu Gln Thr Leu Arg Ala
260 265 270
Asp Glu Ile Leu Pro Ser Glu Ser Lys Gln Lys Asp Tyr Glu Glu Ser
275 280 285

Ser Trp Asp Ser Glu Ser Leu Cys Glu Thr Val Ser Gln Lys Asp Val
    290   295   300
Cys Leu Pro Lys Ala Xaa His Gln Lys Glu Ile Asp Lys Ile Asn Gly
305   310   315   320
Lys Leu Glu Gly Ser Pro Val Lys Asp Gly Leu Leu Lys Ala Asn Cys
                325   330   335
Gly Met Lys Val Ser Ile Pro Thr Lys Ala Leu Glu Leu Met Asp Met
            340   345   350
Gln Thr Phe Lys Ala Glu Pro Pro Glu Lys Pro Ser Ala Phe Glu Pro
        355   360   365
Ala Ile Glu Met Gln Lys Ser Val Pro Asn Lys Ala Leu Glu Leu Lys
    370   375   380
Asn Glu Gln Thr Leu Arg Ala Asp Glu Ile Leu Pro Ser Glu Ser Lys
385   390   395   400
Gln Lys Asp Tyr Glu Glu Ser Ser Trp Asp Ser Glu Ser Leu Cys Glu
                405   410   415
Thr Val Ser Gln Lys Asp Val Cys Leu Pro Lys Ala Xaa His Gln Lys
            420   425   430
Glu Ile Asp Lys Ile Asn Gly Lys Leu Glu Glu Ser Pro Asp Asn Asp
        435   440   445
Gly Phe Leu Lys Ala Pro Cys Arg Met Lys Val Ser Ile Pro Thr Lys
    450   455   460
Ala Leu Glu Leu Met Asp Met Gln Thr Phe Lys Ala Glu Pro Pro Glu
465   470   475   480
Lys Pro Ser Ala Phe Glu Pro Ala Ile Glu Met Gln Lys Ser Val Pro
                485   490   495
Asn Lys Ala Leu Glu Leu Lys Asn Glu Gln Thr Leu Arg Ala Asp Gln
            500   505   510
Met Phe Pro Ser Glu Ser Lys Gln Lys Xaa Val Glu Glu Asn Ser Trp
        515   520   525
Asp Ser Glu Ser Leu Arg Glu Thr Val Ser Gln Lys Asp Val Cys Val
    530   535   540
Pro Lys Ala Thr His Gln Lys Glu Met Asp Lys Ile Ser Gly Lys Leu
545   550   555   560
Glu Asp Ser Thr Ser Leu Ser Lys Ile Leu Asp Thr Val His Ser Cys
                565   570   575
Glu Arg Ala Arg Glu Leu Gln Lys Asp His Cys Glu Gln Arg Thr Gly
            580   585   590
Lys Met Glu Gln Met Lys Lys Lys Phe Cys Val Leu Lys Lys Lys Leu
        595   600   605
Ser Glu Ala Lys Glu Ile Lys Ser Gln Leu Glu Asn Gln Lys Val Lys
    610   615   620
Trp Glu Gln Glu Leu Cys Ser Val Arg Leu Thr Leu Asn Gln Glu Glu
625   630   635   640
Glu Lys Arg Arg Asn Ala Asp Ile Leu Asn Glu Lys Ile Arg Glu Glu
                645   650   655
Leu Gly Arg Ile Glu Glu Gln His Arg Lys Glu Leu Glu Val Lys Gln
            660   665   670
Gln Leu Glu Gln Ala Leu Arg Ile Gln Asp Ile Glu Leu Lys Ser Val
        675   680   685
Glu Ser Asn Leu Asn Gln Val Ser His Thr His Glu Asn Glu Asn Tyr
    690   695   700
Leu Leu His Glu Asn Cys Met Leu Lys Lys Glu Ile Ala Met Leu Lys
705   710   715   720

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Leu Glu Ile Ala Thr Leu Lys His Gln Tyr Gln Glu Lys Glu Asn Lys
                725                 730                 735
Tyr Phe Glu Asp Ile Lys Ile Leu Lys Glu Lys Asn Ala Glu Leu Gln
            740                 745                 750
Met Thr Leu Lys Leu Lys Glu Glu Ser Leu Thr Lys Arg Ala Ser Gln
        755                 760                 765
Tyr Ser Gly Gln Leu Lys Val Leu Ile Ala Glu Asn Thr Met Leu Thr
    770                 775                 780
Ser Lys Leu Lys Glu Lys Gln Asp Lys Glu Ile Leu Glu Ala Glu Ile
785                 790                 795                 800
Glu Ser His His Pro Arg Leu Ala Ser Ala Val Gln Asp His Asp Gln
                805                 810                 815
Ile Val Thr Ser Arg Lys Ser Gln Glu Pro Ala Phe His Ile Ala Gly
            820                 825                 830
Asp Ala Cys Leu Gln Arg Lys Met Asn Val Asp Val Ser Ser Thr Ile
        835                 840                 845
Tyr Asn Asn Glu Val Leu His Gln Pro Leu Ser Glu Ala Gln Arg Lys
    850                 855                 860
Ser Lys Ser Leu Lys Ile Asn Leu Asn Tyr Ala Gly Asp Ala Leu Arg
865                 870                 875                 880
Glu Asn Thr Leu Val Ser Glu His Ala Gln Arg Asp Gln Arg Glu Thr
                885                 890                 895
Gln Cys Gln Met Lys Glu Ala Glu His Met Tyr Gln Asn Glu Gln Asp
            900                 905                 910
Asn Val Asn Lys His Thr Glu Gln Gln Glu Ser Leu Asp Gln Lys Leu
        915                 920                 925
Phe Gln Leu Gln Ser Lys Asn Met Trp Leu Gln Gln Gln Leu Val His
    930                 935                 940
Ala His Lys Lys Ala Asp Asn Lys Ser Lys Ile Thr Ile Asp Ile His
945                 950                 955                 960
Phe Leu Glu Arg Lys Met Gln His His Leu Leu Lys Glu Lys Asn Glu
                965                 970                 975
Glu Ile Phe Asn Tyr Asn Asn His Leu Lys Asn Arg Ile Tyr Gln Tyr
            980                 985                 990
Glu Lys Glu Lys Ala Glu Thr Glu Asn Ser
        995                 1000
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<210> 476
<211> 356
<212> DNA
<213> Homo sapiens

<400> 476
aggtctgccg gaaatgttag gcaccccaac tcaagtccca ggccccaggc atctttcctg 60
ccctgccttg cttggcccat ccagtccagg cgcctggagc aagtgctcag ctacttctcc 120
tgcactttga aagacccctc ccactcctgg cctcacattt ctctgtgtga tcccccactt 180
ctgggctctg ccaccccaca gtgggaaagg ccaccctaga aagaagtccg ctggcaccca 240
taggaagggg cctcaggagc aggaagggcc aggaccagaa ccttgcccac ggcaactgcc 300
ttcctgcctc tccccttcct cctctgctct tgatctgtgt ttcaataaat taatgt 356

<210> 477
<211> 1876
<212> DNA

<213> Homo sapiens

<400> 477
atgacctgcg gatcaggatt tggtgggcgc gccttcagct gcatctcggc ctgcgggccg 60
cgccccggcc gctgctgcat caccgccgcc ccctaccgtg gcatctcctg ctaccgcggc 120
ctcaccgggg gcttcggcag ccacagcgtg tgcggaggct ttcgggccgg ctcctgcgga 180
cgcagcttcg gctaccgctc cgggggcgtg tgcgggccca gtcccccatg catcaccacc 240
gtgtcggtca acgagagcct cctcacgccc ctcaacctgg agatcgaccc caacgcgcag 300
tgcgtgaagc aggaggagaa ggagcagatc aagtccctca acagcaggtt cgcggccttc 360
atcgacaagg tgcgcttcct ggagcagcag aacaaactgc tggagacaaa gctgcagttc 420
taccagaacc gcgagtgttg ccagagcaac ctggagcccc tgtttgaggg ctacatcgag 480
actctgcggc gggaggccga gtgcgtggag gccgacagcg ggaggctggc ctcagagctt 540
aaccacgtgc aggaggtgct ggagggctac aagaagaagt atgaggagga ggtttctctg 600
agagcaacag ctgagaacga gtttgtggct ctgaagaagg atgtggactg cgcctacctc 660
cgcaagtcag acctggaggc caacgtggag gccctgatcc aggagatcga cttcctgagg 720
cggctgtatg aggaggagat ccgcattctc cagtcgcaca tctcagacac ctccgtggtt 780
gtcaagctgg acaacagccg ggacctgaac atggactgca tcattgccga gattaaggca 840
cagtatgacg acattgtcac ccgcagccgg gccgaggccg agtcctggta ccgcagcaag 900
tgtgaggaga tgaaggccac ggtgatcagg cacggggaga ccctgcgccg caccaaggag 960
gagatcaatg agctgaaccg catgatccaa aggctgacgg ccgaggtgga gaatgccaag 1020
tgccagaact ccaagctgga ggccgcggtg gctcagtctg agcagcaggg tgaggcagcc 1080
ctcagtgatg cccgctgcaa gctggccgag ctggagggcg ccctgcagaa ggccaagcag 1140
gacatggcct gcctgatcag ggagtaccag gaggtgatga actccaagct gggcctggac 1200
atcgagatcg ccacctacag gcgcctgctg gagggcgagg agcagaggct atgtgaaggc 1260
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cactttgaaa gacccctccc actcctggcc tcacatttct ctgtgtgatc ccccacttct 1680
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ggaaggggcc tcaggagcag gaagggccag gaccagaacc ttgcccacgg caactgcctt 1800
cctgcctctc cccttcctcc tctgctcttg atctgtgttt caataaatta atgtagccaa 1860
aaaaaaaaaa aaaaaa 1876

<210> 478
<211> 505
<212> PRT
<213> Homo sapiens

<400> 478
Met Thr Cys Gly Ser Gly Phe Gly Gly Arg Ala Phe Ser Cys Ile Ser
1 5 10 15
Ala Cys Gly Pro Arg Pro Gly Arg Cys Cys Ile Thr Ala Ala Pro Tyr
20 25 30
Arg Gly Ile Ser Cys Tyr Arg Gly Leu Thr Gly Gly Phe Gly Ser His
35 40 45
Ser Val Cys Gly Gly Phe Arg Ala Gly Ser Cys Gly Arg Ser Phe Gly
50 55 60
Tyr Arg Ser Gly Gly Val Cys Gly Pro Ser Pro Pro Cys Ile Thr Thr
65 70 75 80
Val Ser Val Asn Glu Ser Leu Leu Thr Pro Leu Asn Leu Glu Ile Asp
85 90 95

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Pro Asn Ala Gln Cys Val Lys Gln Glu Glu Lys Glu Gln Ile Lys Ser
            100                 105                 110
Leu Asn Ser Arg Phe Ala Ala Phe Ile Asp Lys Val Arg Phe Leu Glu
        115                 120                 125
Gln Gln Asn Lys Leu Leu Glu Thr Lys Leu Gln Phe Tyr Gln Asn Arg
    130                 135                 140
Glu Cys Cys Gln Ser Asn Leu Glu Pro Leu Phe Glu Gly Tyr Ile Glu
145                 150                 155                 160
Thr Leu Arg Arg Glu Ala Glu Cys Val Glu Ala Asp Ser Gly Arg Leu
                165                 170                 175
Ala Ser Glu Leu Asn His Val Gln Glu Val Leu Glu Gly Tyr Lys Lys
            180                 185                 190
Lys Tyr Glu Glu Glu Val Ser Leu Arg Ala Thr Ala Glu Asn Glu Phe
        195                 200                 205
Val Ala Leu Lys Lys Asp Val Asp Cys Ala Tyr Leu Arg Lys Ser Asp
    210                 215                 220
Leu Glu Ala Asn Val Glu Ala Leu Ile Gln Glu Ile Asp Phe Leu Arg
225                 230                 235                 240
Arg Leu Tyr Glu Glu Glu Ile Arg Ile Leu Gln Ser His Ile Ser Asp
                245                 250                 255
Thr Ser Val Val Val Lys Leu Asp Asn Ser Arg Asp Leu Asn Met Asp
            260                 265                 270
Cys Ile Ile Ala Glu Ile Lys Ala Gln Tyr Asp Asp Ile Val Thr Arg
        275                 280                 285
Ser Arg Ala Glu Ala Glu Ser Trp Tyr Arg Ser Lys Cys Glu Glu Met
    290                 295                 300
Lys Ala Thr Val Ile Arg His Gly Glu Thr Leu Arg Arg Thr Lys Glu
305                 310                 315                 320
Glu Ile Asn Glu Leu Asn Arg Met Ile Gln Arg Leu Thr Ala Glu Val
                325                 330                 335
Glu Asn Ala Lys Cys Gln Asn Ser Lys Leu Glu Ala Ala Val Ala Gln
            340                 345                 350
Ser Glu Gln Gln Gly Glu Ala Ala Leu Ser Asp Ala Arg Cys Lys Leu
        355                 360                 365
Ala Glu Leu Glu Gly Ala Leu Gln Lys Ala Lys Gln Asp Met Ala Cys
    370                 375                 380
Leu Ile Arg Glu Tyr Gln Glu Val Met Asn Ser Lys Leu Gly Leu Asp
385                 390                 395                 400
Ile Glu Ile Ala Thr Tyr Arg Arg Leu Leu Glu Gly Glu Glu Gln Arg
                405                 410                 415
Leu Cys Glu Gly Ile Gly Ala Val Asn Val Cys Val Ser Ser Ser Arg
            420                 425                 430
Gly Gly Val Val Cys Gly Asp Leu Cys Val Ser Gly Ser Arg Pro Val
        435                 440                 445
Thr Gly Ser Val Cys Ser Ala Pro Cys Asn Gly Asn Val Ala Val Ser
    450                 455                 460
Thr Gly Leu Cys Ala Pro Cys Gly Gln Leu Asn Thr Thr Cys Gly Gly
465                 470                 475                 480
Gly Ser Cys Gly Val Gly Ser Cys Gly Ile Ser Ser Leu Gly Val Gly
                485                 490                 495
Ser Cys Gly Ser Ser Cys Arg Lys Cys
            500                 505
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<210> 479
<211> 221
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 22
<223> n = A,T,C or G

<400> 479
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tccgatcaaa agaatcatca tctttacctt gacttttcag ggaattactg aactttcttc 120
tcagaagata gggcacagcc attgccttgg cctcacttga agggtctgca tttgggtcct 180
ctggtctctt gccaagtttc ccagccactc gagggagaaa t 221

<210> 480
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 480
cggcgaattc accatgggaa caagagctct gcagtg 36

<210> 481
<211> 62
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 481
cggcaagctt ttaatggtga tggtgatgat gtataacttc tgtttctgct ttctcttttt 60
ca 62

<210> 482
<211> 972
<212> DNA
<213> Homo sapiens

<400> 482
atgggaacaa gagctctgca gtgtgaggtt tctcacactc atgaaaatga aaattatctc 60
ttacatgaaa attgcatgtt gaaaaaggaa attgccatgc taaaactgga aatagccaca 120
ctgaaacacc aataccagga aaaggaaaat aaatactttg aggacattaa gattttaaaa 180
gaaaagaatg ctgaacttca gatgacccta aaactgaaag aggaatcatt aactaaaagg 240
gcatctcaat atagtgggca gcttaaagtt ctgatagctg agaacacaat gctcacttct 300
aaattgaagg aaaaacaaga caaagaaata ctagaggcag aaattgaatc acaccatcct 360
agactggctt ctgctgtaca agaccatgat caaattgtga catcaagaaa aagtcaagaa 420
cctgctttcc acattgcagg agatgcttgt ttgcaaagaa aaatgaatgt tgatgtgagt 480
agtacgatat ataacaatga ggtgctccat caaccacttt ctgaagctca aaggaaatcc 540

aaaagcctaa aaattaatct caattatgcc ggagatgctc taagagaaaa tacattggtt 600
tcagaacatg cacaaagaga ccaacgtgaa acacagtgtc aaatgaagga agctgaacac 660
atgtatcaaa acgaacaaga taatgtgaac aaacacactg aacagcagga gtctctagat 720
cagaaattat ttcaactaca aagcaaaaat atgtggcttc aacagcaatt agttcatgca 780
cataagaaag ctgacaacaa aagcaagata acaattgata ttcattttct tgagaggaaa 840
atgcaacatc atctcctaaa agagaaaaat gaggagatat ttaattacaa taaccattta 900
aaaaaccgta tatatcaata tgaaaaagag aaagcagaaa cagaagttat acatcatcac 960
catcaccatt aa 972

<210> 483
<211> 323
<212> PRT
<213> Homo sapiens

<400> 483
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1 5 10 15
Glu Asn Tyr Leu Leu His Glu Asn Cys Met Leu Lys Lys Glu Ile Ala
20 25 30
Met Leu Lys Leu Glu Ile Ala Thr Leu Lys His Gln Tyr Gln Glu Lys
35 40 45
Glu Asn Lys Tyr Phe Glu Asp Ile Lys Ile Leu Lys Glu Lys Asn Ala
50 55 60
Glu Leu Gln Met Thr Leu Lys Leu Lys Glu Glu Ser Leu Thr Lys Arg
65 70 75 80
Ala Ser Gln Tyr Ser Gly Gln Leu Lys Val Leu Ile Ala Glu Asn Thr
85 90 95
Met Leu Thr Ser Lys Leu Lys Glu Lys Gln Asp Lys Glu Ile Leu Glu
100 105 110
Ala Glu Ile Glu Ser His His Pro Arg Leu Ala Ser Ala Val Gln Asp
115 120 125
His Asp Gln Ile Val Thr Ser Arg Lys Ser Gln Glu Pro Ala Phe His
130 135 140
Ile Ala Gly Asp Ala Cys Leu Gln Arg Lys Met Asn Val Asp Val Ser
145 150 155 160
Ser Thr Ile Tyr Asn Asn Glu Val Leu His Gln Pro Leu Ser Glu Ala
165 170 175
Gln Arg Lys Ser Lys Ser Leu Lys Ile Asn Leu Asn Tyr Ala Gly Asp
180 185 190
Ala Leu Arg Glu Asn Thr Leu Val Ser Glu His Ala Gln Arg Asp Gln
195 200 205
Arg Glu Thr Gln Cys Gln Met Lys Glu Ala Glu His Met Tyr Gln Asn
210 215 220
Glu Gln Asp Asn Val Asn Lys His Thr Glu Gln Gln Glu Ser Leu Asp
225 230 235 240
Gln Lys Leu Phe Gln Leu Gln Ser Lys Asn Met Trp Leu Gln Gln Gln
245 250 255
Leu Val His Ala His Lys Lys Ala Asp Asn Lys Ser Lys Ile Thr Ile
260 265 270
Asp Ile His Phe Leu Glu Arg Lys Met Gln His His Leu Leu Lys Glu
275 280 285
Lys Asn Glu Glu Ile Phe Asn Tyr Asn Asn His Leu Lys Asn Arg Ile
290 295 300
Tyr Gln Tyr Glu Lys Glu Lys Ala Glu Thr Glu Val Ile His His His

305 310 315 320
His His His

<210> 484
<211> 1518
<212> DNA
<213> Homo sapiens

<400> 484
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cggcccggcc gctgctgcat caccgccgcc ccctaccgtg gcatctcctg ctaccgcggc 120
ctcaccgggg gcttcggcag ccacagcgtg tgcggaggct ttcgggccgg ctcctgcgga 180
cgcagcttcg gctaccgctc cgggggcgtg tgcgggccca gtcccccatg catcaccacc 240
gtgtcggtca acgagagcct cctcacgccc ctcaacctgg agatcgaccc caacgcgcag 300
tgcgtgaagc aggaggagaa ggagcagatc aagtccctca acagcaggtt cgcggccttc 360
atcgacaagg tgcgcttcct ggagcagcag aacaaactgc tggagacaaa gctgcagttc 420
taccagaacc gcgagtgttg ccagagcaac ctggagcccc tgtttgaggg ctacatcgag 480
actctgcggc gggaggccga gtgcgtggag gccgacagcg ggaggctggc ctcagagctt 540
aaccacgtgc aggaggtgct ggagggctac aagaagaagt atgaggagga ggtttctctg 600
agagcaacag ctgagaacga gtttgtggct ctgaagaagg atgtggactg cgcctacctc 660
cgcaagtcag acctggaggc caacgtggag gccctgatcc aggagatcga cttcctgagg 720
cggctgtatg aggaggagat ccgcattctc cagtcgcaca tctcagacac ctccgtggtt 780
gtcaagctgg acaacagccg ggacctgaac atggactgca tcattgccga gattaaggca 840
cagtatgacg acattgtcac ccgcagccgg gccgaggccg agtcctggta ccgcagcaag 900
tgtgaggaga tgaaggccac ggtgatcagg cacggggaga ccctgcgccg caccaaggag 960
gagatcaatg agctgaaccg catgatccaa aggctgacgg ccgaggtgga gaatgccaag 1020
tgccagaact ccaagctgga ggccgcggtg gcccagtctg agcagcaggg tgaggcagcc 1080
ctcagtgatg cccgctgcaa gctggccgag ctggagggcg ccctgcagaa ggccaagcag 1140
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atcgagatcg ccacctacag gcgcctgctg gagggcgagg agcagaggct atgtgaaggc 1260
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gtggcggtga gcaccggcct gtgtgcgccc tgcggccaat tgaacaccac ctgcggaggg 1440
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agctgccgga aatgttag 1518

<210> 485
<211> 505
<212> PRT
<213> Homo sapiens

<400> 485
Met Thr Cys Gly Ser Gly Phe Gly Gly Arg Ala Phe Arg Cys Ile Ser
1 5 10 15
Ala Cys Gly Pro Arg Pro Gly Arg Cys Cys Ile Thr Ala Ala Pro Tyr
20 25 30
Arg Gly Ile Ser Cys Tyr Arg Gly Leu Thr Gly Gly Phe Gly Ser His
35 40 45
Ser Val Cys Gly Gly Phe Arg Ala Gly Ser Cys Gly Arg Ser Phe Gly
50 55 60
Tyr Arg Ser Gly Gly Val Cys Gly Pro Ser Pro Pro Cys Ile Thr Thr
65 70 75 80

Val Ser Val Asn Glu Ser Leu Leu Thr Pro Leu Asn Leu Glu Ile Asp
85 90 95
Pro Asn Ala Gln Cys Val Lys Gln Glu Glu Lys Glu Gln Ile Lys Ser
100 105 110
Leu Asn Ser Arg Phe Ala Ala Phe Ile Asp Lys Val Arg Phe Leu Glu
115 120 125
Gln Gln Asn Lys Leu Leu Glu Thr Lys Leu Gln Phe Tyr Gln Asn Arg
130 135 140
Glu Cys Cys Gln Ser Asn Leu Glu Pro Leu Phe Glu Gly Tyr Ile Glu
145 150 155 160
Thr Leu Arg Arg Glu Ala Glu Cys Val Glu Ala Asp Ser Gly Arg Leu
165 170 175
Ala Ser Glu Leu Asn His Val Gln Glu Val Leu Glu Gly Tyr Lys Lys
180 185 190
Lys Tyr Glu Glu Glu Val Ser Leu Arg Ala Thr Ala Glu Asn Glu Phe
195 200 205
Val Ala Leu Lys Lys Asp Val Asp Cys Ala Tyr Leu Arg Lys Ser Asp
210 215 220
Leu Glu Ala Asn Val Glu Ala Leu Ile Gln Glu Ile Asp Phe Leu Arg
225 230 235 240
Arg Leu Tyr Glu Glu Glu Ile Arg Ile Leu Gln Ser His Ile Ser Asp
245 250 255
Thr Ser Val Val Val Lys Leu Asp Asn Ser Arg Asp Leu Asn Met Asp
260 265 270
Cys Ile Ile Ala Glu Ile Lys Ala Gln Tyr Asp Asp Ile Val Thr Arg
275 280 285
Ser Arg Ala Glu Ala Glu Ser Trp Tyr Arg Ser Lys Cys Glu Glu Met
290 295 300
Lys Ala Thr Val Ile Arg His Gly Glu Thr Leu Arg Arg Thr Lys Glu
305 310 315 320
Glu Ile Asn Glu Leu Asn Arg Met Ile Gln Arg Leu Thr Ala Glu Val
325 330 335
Glu Asn Ala Lys Cys Gln Asn Ser Lys Leu Glu Ala Ala Val Ala Gln
340 345 350
Ser Glu Gln Gln Gly Glu Ala Ala Leu Ser Asp Ala Arg Cys Lys Leu
355 360 365
Ala Glu Leu Glu Gly Ala Leu Gln Lys Ala Lys Gln Asp Met Ala Cys
370 375 380
Leu Ile Arg Glu Tyr Gln Glu Val Met Asn Ser Lys Leu Gly Leu Asp
385 390 395 400
Ile Glu Ile Ala Thr Tyr Arg Arg Leu Leu Glu Gly Glu Glu Gln Arg
405 410 415
Leu Cys Glu Gly Ile Gly Ala Val Asn Val Cys Val Ser Ser Ser Arg
420 425 430
Gly Gly Val Val Cys Gly Asp Leu Cys Val Ser Gly Ser Arg Pro Val
435 440 445
Thr Gly Ser Val Cys Ser Ala Pro Cys Asn Gly Asn Val Ala Val Ser
450 455 460
Thr Gly Leu Cys Ala Pro Cys Gly Gln Leu Asn Thr Thr Cys Gly Gly
465 470 475 480
Gly Ser Cys Gly Val Gly Ser Cys Gly Ile Ser Ser Leu Gly Val Gly
485 490 495
Ser Cys Gly Ser Ser Cys Arg Lys Cys
500 505

<210> 486
<211> 827
<212> DNA
<213> Homo sapiens

<400> 486
gcattctcca gtcgcacatc tcagacacct ccgtggttgt caagctggac aacagccggg 60
acctgaacat ggactgcatc attgccgaga ttaaggcaca gtatgacgac attgtcaccc 120
gcagccgggc cgaggccgag tcctggtacc gcagcaagtg tgaggagatg aaggccacgg 180
tgatcaggca cggggagacc ctgcgccgca ccaaggagga gatcaatgag ctgaaccgca 240
tgatccaaag gctgacggcc gaggtggaga atgccaagtg ccagaactcc aagctggagg 300
ccgcggtggc ccagtctgag cagcagggtg aggcagccct cagtgatgcc cgctgcaagc 360
tggccgagct ggagggcgcc ctgcagaagg ccaagcagga catggcctgc ctgatcaggg 420
agtaccagga ggtgatgaac tccaagctgg gcctggacat cgagatcgcc acctacaggc 480
gcctgctgga gggcgaggag cagaggctat gtgaaggcat tggggctgtg aatgtctgtg 540
tcagcagctc ccggggcggg gtcgtgtgcg gggacctctg cgtgtcaggc tcccggccag 600
tgactggcag tgtctgcagc gctccgtgca acgggaacgt ggcggtgagc accggcctgt 660
gtgcgccctg cggccaattg aacaccacct gcggaggggg ttcctgcggc gtgggctcct 720
gtggtatcag ctccctgggt gtggggtctt gcggcagcag ctgccggaaa tgttaggcac 780
cccaactcaa gtcccaggcc ccaggcatct ttcctgccct gccttgc 827

<210> 487
<211> 235
<212> PRT
<213> Homo sapiens

<400> 487
Met Asp Cys Ile Ile Ala Glu Ile Lys Ala Gln Tyr Asp Asp Ile Val
 1   5   10   15
Thr Arg Ser Arg Ala Glu Ala Glu Ser Trp Tyr Arg Ser Lys Cys Glu
            20   25   30
Glu Met Lys Ala Thr Val Ile Arg His Gly Glu Thr Leu Arg Arg Thr
        35   40   45
Lys Glu Glu Ile Asn Glu Leu Asn Arg Met Ile Gln Arg Leu Thr Ala
    50   55   60
Glu Val Glu Asn Ala Lys Cys Gln Asn Ser Lys Leu Glu Ala Ala Val
65   70   75   80
Ala Gln Ser Glu Gln Gln Gly Glu Ala Ala Leu Ser Asp Ala Arg Cys
                85   90   95
Lys Leu Ala Glu Leu Glu Gly Ala Leu Gln Lys Ala Lys Gln Asp Met
            100   105   110
Ala Cys Leu Ile Arg Glu Tyr Gln Glu Val Met Asn Ser Lys Leu Gly
        115   120   125
Leu Asp Ile Glu Ile Ala Thr Tyr Arg Arg Leu Leu Glu Gly Glu Glu
    130   135   140
Gln Arg Leu Cys Glu Gly Ile Gly Ala Val Asn Val Cys Val Ser Ser
145   150   155   160
Ser Arg Gly Gly Val Val Cys Gly Asp Leu Cys Val Ser Gly Ser Arg
                165   170   175
Pro Val Thr Gly Ser Val Cys Ser Ala Pro Cys Asn Gly Asn Val Ala
            180   185   190
Val Ser Thr Gly Leu Cys Ala Pro Cys Gly Gln Leu Asn Thr Thr Cys

195 200 205
Gly Gly Gly Ser Cys Gly Val Gly Ser Cys Gly Ile Ser Ser Leu Gly
210 215 220
Val Gly Ser Cys Gly Ser Ser Cys Arg Lys Cys
225 230 235

<210> 488
<211> 9
<212> PRT
<213> Homo sapiens

<400> 488
Ser Leu Thr Lys Arg Ala Ser Gln Tyr
1 5

<210> 489
<211> 27
<212> DNA
<213> Homo sapiens

<400> 489
tcattaacta aaagggcatc tcaatat 27

<210> 490
<211> 3288
<212> DNA
<213> Homo sapiens

<400> 490
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ggctgcccct tattggagaa tgtgatttcc aagacaatca atccacaagt gtctaagact 120
gaatacaaag aacttcttca agagttcata gacgacaatg ccactacaaa tgccatagat 180
gaattgaagg aatgttttct taaccaaacg gatgaaactc tgagcaatgt tgaggtgttt 240
atgcaattaa tatatgacag cagtctttgt gatttattta tgagtcccgc aaaagaaaca 300
tctgagaaat ttacgtgggc agcaaaagga agacctagga agatcgcatg ggagaaaaaa 360
gaaacacctg taaagactgg atgcgtggca agagtaacat ctaataaaac taaagttttg 420
gaaaaaggaa gatctaagat gattgcatgt cctacaaaag aatcatctac aaaagcaagt 480
gccaatgatc agaggttccc atcagaatcc aaacaagagg aagatgaaga atattcttgt 540
gattctcgga gtctctttga gagttctgca aagattcaag tgtgtatacc tgagtctata 600
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gaattgatgg acatgcaaac tttcaaagca gagcctcccg agaagccatc tgccttcgag 1380

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cgtatatatc aatatgaaaa agagaaagca gaaacagaaa actcatga 3288

<210> 491
<211> 2232
<212> DNA
<213> Homo sapiens

<400> 491
atgaagttgc tgatggtcct catgctggcg gccctctccc agcactgcta cgcaggctct 60
ggctgcccct tattggagaa tgtgatttcc aagacaatca atccacaagt gtctaagact 120
gaatacaaag aacttcttca agagttcata gacgacaatg ccactacaaa tgccatagat 180
gaattgaagg aatgttttct taaccaaacg gatgaaactc tgagcaatgt tgaggtgttt 240
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tctgagaaat ttacgtgggc agcaaaagga agacctagga agatcgcatg ggagaaaaaa 360
gaaacacctg taaagactgg atgcgtggca agagtaacat ctaataaaac taaagttttg 420
gaaaaaggaa gatctaagat gattgcatgt cctacaaaag aatcatctac aaaagcaagt 480
gccaatgatc agaggttccc atcagaatcc aaacaagagg aagatgaaga atattcttgt 540
gattctcgga gtctctttga gagttctgca aagattcaag tgtgtatacc tgagtctata 600
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gaacaaacat tgagagcaga tccgatgttc ccaccagaat ccaaacaaaa ggactatgaa 780
gaaaattctt gggattctga gagtctctgt gagactgttt cacagaagga tgtgtgttta 840
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aaagatggtc ttctgaaggc taactgcgga atgaaagttt ctattccaac taaagcctta 1320
gaattgatgg acatgcaaac tttcaaagca gagcctcccg agaagccatc tgccttcgag 1380
cctgccattg aaatgcaaaa gtctgttcca aataaagcct tggaattgaa gaatgaacaa 1440
acattgagag cagatgagat actcccatca gaatccaaac aaaaggacta tgaagaaagt 1500
tcttgggatt ctgagagtct ctgtgagact gtttcacaga aggatgtgtg tttacccaag 1560
gctrcrcatc aaaaagaaat agataaaata aatggaaaat tagaagagtc tcctgataat 1620
gatggttttc tgaaggctcc ctgcagaatg aaagtttcta ttccaactaa agccttagaa 1680
ttgatggaca tgcaaacttt caaagcagag cctcccgaga agccatctgc cttcgagcct 1740
gccattgaaa tgcaaaagtc tgttccaaat aaagccttgg aattgaagaa tgaacaaaca 1800
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tgggattctg agagtctccg tgagactgtt tcacagaagg atgtgtgtgt acccaaggct 1920
acacatcaaa aagaaatgga taaaataagt ggaaaattag aagattcaac tagcctatca 1980
aaaatcttgg atacagttca ttcttgtgaa agagcaaggg aacttcaaaa agatcactgt 2040
gaacaacgta caggaaaaat ggaacaaatg aaaaagaagt tttgtgtact gaaaaagaaa 2100
ctgtcagaag caaaagaaat aaaatcacag ttagagaacc aaaaagttaa atgggaacaa 2160
gagctctgca gtgtgaggtt tctcacactc atgaaaatga aaattatctc ttacatgaaa 2220
attgcatgtt ga 2232

<210> 492
<211> 1233
<212> DNA
<213> Homo sapiens

<400> 492
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ggctgcccct tattggagaa tgtgatttcc aagacaatca atccacaagt gtctaagact 120
gaatacaaag aacttcttca agagttcata gacgacaatg ccactacaaa tgccatagat 180
gaattgaagg aatgttttct taaccaaacg gatgaaactc tgagcaatgt tgaggtgttt 240
atgcaattaa tatatgacag cagtctttgt gatttattta tgggaacaag agctctgcag 300
tgtgaggttt ctcacactca tgaaaatgaa aattatctct tacatgaaaa ttgcatgttg 360
aaaaaggaaa ttgccatgct aaaactggaa atagccacac tgaaacacca ataccaggaa 420
aaggaaaata aatactttga ggacattaag attttaaaag aaaagaatgc tgaacttcag 480
atgaccctaa aactgaaaga ggaatcatta actaaaaggg catctcaata tagtgggcag 540
cttaaagttc tgatagctga gaacacaatg ctcacttcta aattgaagga aaaacaagac 600
aaagaaatac tagaggcaga aattgaatca caccatccta gactggcttc tgctgtacaa 660
gaccatgatc aaattgtgac atcaagaaaa agtcaagaac ctgctttcca cattgcagga 720
gatgcttgtt tgcaaagaaa aatgaatgtt gatgtgagta gtacgatata taacaatgag 780
gtgctccatc aaccactttc tgaagctcaa aggaaatcca aaagcctaaa aattaatctc 840
aattatgccg gagatgctct aagagaaaat acattggttt cagaacatgc acaaagagac 900
caacgtgaaa cacagtgtca aatgaaggaa gctgaacaca tgtatcaaaa cgaacaagat 960
aatgtgaaca aacacactga acagcaggag tctctagatc agaaattatt tcaactacaa 1020
agcaaaaata tgtggcttca acagcaatta gttcatgcac ataagaaagc tgacaacaaa 1080
agcaagataa caattgatat tcattttctt gagaggaaaa tgcaacatca tctcctaaaa 1140
gagaaaaatg aggagatatt taattacaat aaccatttaa aaaaccgtat atatcaatat 1200
gaaaaagaga aagcagaaac agaagttata taa 1233

<210> 493
<211> 1095

<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT
<222> 403, 522, 615
<223> Xaa = Any Amino Acid

<400> 493

```
Met Lys Leu Leu Met Val Leu Met Leu Ala Ala Leu Ser Gln His Cys
 1               5                  10                  15
Tyr Ala Gly Ser Gly Cys Pro Leu Leu Glu Asn Val Ile Ser Lys Thr
            20                  25                  30
Ile Asn Pro Gln Val Ser Lys Thr Glu Tyr Lys Glu Leu Leu Gln Glu
        35                  40                  45
Phe Ile Asp Asp Asn Ala Thr Thr Asn Ala Ile Asp Glu Leu Lys Glu
    50                  55                  60
Cys Phe Leu Asn Gln Thr Asp Glu Thr Leu Ser Asn Val Glu Val Phe
65                  70                  75                  80
Met Gln Leu Ile Tyr Asp Ser Ser Leu Cys Asp Leu Phe Met Ser Pro
                85                  90                  95
Ala Lys Glu Thr Ser Glu Lys Phe Thr Trp Ala Ala Lys Gly Arg Pro
            100                 105                 110
Arg Lys Ile Ala Trp Glu Lys Lys Glu Thr Pro Val Lys Thr Gly Cys
        115                 120                 125
Val Ala Arg Val Thr Ser Asn Lys Thr Lys Val Leu Glu Lys Gly Arg
    130                 135                 140
Ser Lys Met Ile Ala Cys Pro Thr Lys Glu Ser Ser Thr Lys Ala Ser
145                 150                 155                 160
Ala Asn Asp Gln Arg Phe Pro Ser Glu Ser Lys Gln Glu Glu Asp Glu
                165                 170                 175
Glu Tyr Ser Cys Asp Ser Arg Ser Leu Phe Glu Ser Ser Ala Lys Ile
            180                 185                 190
Gln Val Cys Ile Pro Glu Ser Ile Tyr Gln Lys Val Met Glu Ile Asn
        195                 200                 205
Arg Glu Val Glu Glu Pro Pro Lys Lys Pro Ser Ala Phe Lys Pro Ala
    210                 215                 220
Ile Glu Met Gln Asn Ser Val Pro Asn Lys Ala Phe Glu Leu Lys Asn
225                 230                 235                 240
Glu Gln Thr Leu Arg Ala Asp Pro Met Phe Pro Pro Glu Ser Lys Gln
                245                 250                 255
Lys Asp Tyr Glu Glu Asn Ser Trp Asp Ser Glu Ser Leu Cys Glu Thr
            260                 265                 270
Val Ser Gln Lys Asp Val Cys Leu Pro Lys Ala Thr His Gln Lys Glu
        275                 280                 285
Ile Asp Lys Ile Asn Gly Lys Leu Glu Glu Ser Pro Asn Lys Asp Gly
    290                 295                 300
Leu Leu Lys Ala Thr Cys Gly Met Lys Val Ser Ile Pro Thr Lys Ala
305                 310                 315                 320
Leu Glu Leu Lys Asp Met Gln Thr Phe Lys Ala Glu Pro Pro Gly Lys
                325                 330                 335
Pro Ser Ala Phe Glu Pro Ala Thr Glu Met Gln Lys Ser Val Pro Asn
            340                 345                 350
Lys Ala Leu Glu Leu Lys Asn Glu Gln Thr Leu Arg Ala Asp Glu Ile
```

```
        355                 360                 365
Leu Pro Ser Glu Ser Lys Gln Lys Asp Tyr Glu Glu Ser Ser Trp Asp
    370                 375                 380
Ser Glu Ser Leu Cys Glu Thr Val Ser Gln Lys Asp Val Cys Leu Pro
385                 390                 395                 400
Lys Ala Xaa His Gln Lys Glu Ile Asp Lys Ile Asn Gly Lys Leu Glu
                405                 410                 415
Gly Ser Pro Val Lys Asp Gly Leu Leu Lys Ala Asn Cys Gly Met Lys
            420                 425                 430
Val Ser Ile Pro Thr Lys Ala Leu Glu Leu Met Asp Met Gln Thr Phe
        435                 440                 445
Lys Ala Glu Pro Pro Glu Lys Pro Ser Ala Phe Glu Pro Ala Ile Glu
    450                 455                 460
Met Gln Lys Ser Val Pro Asn Lys Ala Leu Glu Leu Lys Asn Glu Gln
465                 470                 475                 480
Thr Leu Arg Ala Asp Glu Ile Leu Pro Ser Glu Ser Lys Gln Lys Asp
                485                 490                 495
Tyr Glu Glu Ser Ser Trp Asp Ser Glu Ser Leu Cys Glu Thr Val Ser
            500                 505                 510
Gln Lys Asp Val Cys Leu Pro Lys Ala Xaa His Gln Lys Glu Ile Asp
        515                 520                 525
Lys Ile Asn Gly Lys Leu Glu Glu Ser Pro Asp Asn Asp Gly Phe Leu
    530                 535                 540
Lys Ala Pro Cys Arg Met Lys Val Ser Ile Pro Thr Lys Ala Leu Glu
545                 550                 555                 560
Leu Met Asp Met Gln Thr Phe Lys Ala Glu Pro Pro Glu Lys Pro Ser
                565                 570                 575
Ala Phe Glu Pro Ala Ile Glu Met Gln Lys Ser Val Pro Asn Lys Ala
            580                 585                 590
Leu Glu Leu Lys Asn Glu Gln Thr Leu Arg Ala Asp Gln Met Phe Pro
        595                 600                 605
Ser Glu Ser Lys Gln Lys Xaa Val Glu Glu Asn Ser Trp Asp Ser Glu
    610                 615                 620
Ser Leu Arg Glu Thr Val Ser Gln Lys Asp Val Cys Val Pro Lys Ala
625                 630                 635                 640
Thr His Gln Lys Glu Met Asp Lys Ile Ser Gly Lys Leu Glu Asp Ser
                645                 650                 655
Thr Ser Leu Ser Lys Ile Leu Asp Thr Val His Ser Cys Glu Arg Ala
            660                 665                 670
Arg Glu Leu Gln Lys Asp His Cys Glu Gln Arg Thr Gly Lys Met Glu
        675                 680                 685
Gln Met Lys Lys Lys Phe Cys Val Leu Lys Lys Lys Leu Ser Glu Ala
    690                 695                 700
Lys Glu Ile Lys Ser Gln Leu Glu Asn Gln Lys Val Lys Trp Glu Gln
705                 710                 715                 720
Glu Leu Cys Ser Val Arg Leu Thr Leu Asn Gln Glu Glu Glu Lys Arg
                725                 730                 735
Arg Asn Ala Asp Ile Leu Asn Glu Lys Ile Arg Glu Glu Leu Gly Arg
            740                 745                 750
Ile Glu Glu Gln His Arg Lys Glu Leu Glu Val Lys Gln Gln Leu Glu
        755                 760                 765
Gln Ala Leu Arg Ile Gln Asp Ile Glu Leu Lys Ser Val Glu Ser Asn
    770                 775                 780
Leu Asn Gln Val Ser His Thr His Glu Asn Glu Asn Tyr Leu Leu His
```

```
785                 790                 795                 800
Glu Asn Cys Met Leu Lys Lys Glu Ile Ala Met Leu Lys Leu Glu Ile
                805                 810                 815
Ala Thr Leu Lys His Gln Tyr Gln Glu Lys Glu Asn Lys Tyr Phe Glu
            820                 825                 830
Asp Ile Lys Ile Leu Lys Glu Lys Asn Ala Glu Leu Gln Met Thr Leu
        835                 840                 845
Lys Leu Lys Glu Glu Ser Leu Thr Lys Arg Ala Ser Gln Tyr Ser Gly
    850                 855                 860
Gln Leu Lys Val Leu Ile Ala Glu Asn Thr Met Leu Thr Ser Lys Leu
865                 870                 875                 880
Lys Glu Lys Gln Asp Lys Glu Ile Leu Glu Ala Glu Ile Glu Ser His
                885                 890                 895
His Pro Arg Leu Ala Ser Ala Val Gln Asp His Asp Gln Ile Val Thr
            900                 905                 910
Ser Arg Lys Ser Gln Glu Pro Ala Phe His Ile Ala Gly Asp Ala Cys
        915                 920                 925
Leu Gln Arg Lys Met Asn Val Asp Val Ser Ser Thr Ile Tyr Asn Asn
    930                 935                 940
Glu Val Leu His Gln Pro Leu Ser Glu Ala Gln Arg Lys Ser Lys Ser
945                 950                 955                 960
Leu Lys Ile Asn Leu Asn Tyr Ala Gly Asp Ala Leu Arg Glu Asn Thr
                965                 970                 975
Leu Val Ser Glu His Ala Gln Arg Asp Gln Arg Glu Thr Gln Cys Gln
            980                 985                 990
Met Lys Glu Ala Glu His Met Tyr Gln Asn Glu Gln Asp Asn Val Asn
        995                 1000                1005
Lys His Thr Glu Gln Gln Glu Ser Leu Asp Gln Lys Leu Phe Gln Leu
    1010                1015                1020
Gln Ser Lys Asn Met Trp Leu Gln Gln Gln Leu Val His Ala His Lys
1025                1030                1035                1040
Lys Ala Asp Asn Lys Ser Lys Ile Thr Ile Asp Ile His Phe Leu Glu
                1045                1050                1055
Arg Lys Met Gln His His Leu Leu Lys Glu Lys Asn Glu Glu Ile Phe
            1060                1065                1070
Asn Tyr Asn Asn His Leu Lys Asn Arg Ile Tyr Gln Tyr Glu Lys Glu
        1075                1080                1085
Lys Ala Glu Thr Glu Asn Ser
    1090                1095
```

<210> 494
<211> 743
<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT
<222> 403, 522, 615
<223> Xaa = Any Amino Acid

<400> 494

```
Met Lys Leu Leu Met Val Leu Met Leu Ala Ala Leu Ser Gln His Cys
 1               5                  10                  15
```

```
Tyr Ala Gly Ser Gly Cys Pro Leu Leu Glu Asn Val Ile Ser Lys Thr
            20                  25                  30
Ile Asn Pro Gln Val Ser Lys Thr Glu Tyr Lys Glu Leu Leu Gln Glu
        35                  40                  45
Phe Ile Asp Asp Asn Ala Thr Thr Asn Ala Ile Asp Glu Leu Lys Glu
    50                  55                  60
Cys Phe Leu Asn Gln Thr Asp Glu Thr Leu Ser Asn Val Glu Val Phe
65                  70                  75                  80
Met Gln Leu Ile Tyr Asp Ser Ser Leu Cys Asp Leu Phe Met Ser Pro
                85                  90                  95
Ala Lys Glu Thr Ser Glu Lys Phe Thr Trp Ala Ala Lys Gly Arg Pro
            100                 105                 110
Arg Lys Ile Ala Trp Glu Lys Lys Glu Thr Pro Val Lys Thr Gly Cys
        115                 120                 125
Val Ala Arg Val Thr Ser Asn Lys Thr Lys Val Leu Glu Lys Gly Arg
    130                 135                 140
Ser Lys Met Ile Ala Cys Pro Thr Lys Glu Ser Ser Thr Lys Ala Ser
145                 150                 155                 160
Ala Asn Asp Gln Arg Phe Pro Ser Glu Ser Lys Gln Glu Glu Asp Glu
                165                 170                 175
Glu Tyr Ser Cys Asp Ser Arg Ser Leu Phe Glu Ser Ser Ala Lys Ile
            180                 185                 190
Gln Val Cys Ile Pro Glu Ser Ile Tyr Gln Lys Val Met Glu Ile Asn
        195                 200                 205
Arg Glu Val Glu Glu Pro Pro Lys Lys Pro Ser Ala Phe Lys Pro Ala
    210                 215                 220
Ile Glu Met Gln Asn Ser Val Pro Asn Lys Ala Phe Glu Leu Lys Asn
225                 230                 235                 240
Glu Gln Thr Leu Arg Ala Asp Pro Met Phe Pro Pro Glu Ser Lys Gln
                245                 250                 255
Lys Asp Tyr Glu Glu Asn Ser Trp Asp Ser Glu Ser Leu Cys Glu Thr
            260                 265                 270
Val Ser Gln Lys Asp Val Cys Leu Pro Lys Ala Thr His Gln Lys Glu
        275                 280                 285
Ile Asp Lys Ile Asn Gly Lys Leu Glu Glu Ser Pro Asn Lys Asp Gly
    290                 295                 300
Leu Leu Lys Ala Thr Cys Gly Met Lys Val Ser Ile Pro Thr Lys Ala
305                 310                 315                 320
Leu Glu Leu Lys Asp Met Gln Thr Phe Lys Ala Glu Pro Pro Gly Lys
                325                 330                 335
Pro Ser Ala Phe Glu Pro Ala Thr Glu Met Gln Lys Ser Val Pro Asn
            340                 345                 350
Lys Ala Leu Glu Leu Lys Asn Glu Gln Thr Leu Arg Ala Asp Glu Ile
        355                 360                 365
Leu Pro Ser Glu Ser Lys Gln Lys Asp Tyr Glu Glu Ser Ser Trp Asp
    370                 375                 380
Ser Glu Ser Leu Cys Glu Thr Val Ser Gln Lys Asp Val Cys Leu Pro
385                 390                 395                 400
Lys Ala Xaa His Gln Lys Glu Ile Asp Lys Ile Asn Gly Lys Leu Glu
                405                 410                 415
Gly Ser Pro Val Lys Asp Gly Leu Leu Lys Ala Asn Cys Gly Met Lys
            420                 425                 430
Val Ser Ile Pro Thr Lys Ala Leu Glu Leu Met Asp Met Gln Thr Phe
        435                 440                 445
```

```
Lys Ala Glu Pro Pro Glu Lys Pro Ser Ala Phe Glu Pro Ala Ile Glu
    450                 455                 460
Met Gln Lys Ser Val Pro Asn Lys Ala Leu Glu Leu Lys Asn Glu Gln
465                 470                 475                 480
Thr Leu Arg Ala Asp Glu Ile Leu Pro Ser Glu Ser Lys Gln Lys Asp
                485                 490                 495
Tyr Glu Glu Ser Ser Trp Asp Ser Glu Ser Leu Cys Glu Thr Val Ser
            500                 505                 510
Gln Lys Asp Val Cys Leu Pro Lys Ala Xaa His Gln Lys Glu Ile Asp
        515                 520                 525
Lys Ile Asn Gly Lys Leu Glu Glu Ser Pro Asp Asn Asp Gly Phe Leu
    530                 535                 540
Lys Ala Pro Cys Arg Met Lys Val Ser Ile Pro Thr Lys Ala Leu Glu
545                 550                 555                 560
Leu Met Asp Met Gln Thr Phe Lys Ala Glu Pro Pro Glu Lys Pro Ser
                565                 570                 575
Ala Phe Glu Pro Ala Ile Glu Met Gln Lys Ser Val Pro Asn Lys Ala
            580                 585                 590
Leu Glu Leu Lys Asn Glu Gln Thr Leu Arg Ala Asp Gln Met Phe Pro
        595                 600                 605
Ser Glu Ser Lys Gln Lys Xaa Val Glu Glu Asn Ser Trp Asp Ser Glu
    610                 615                 620
Ser Leu Arg Glu Thr Val Ser Gln Lys Asp Val Cys Val Pro Lys Ala
625                 630                 635                 640
Thr His Gln Lys Glu Met Asp Lys Ile Ser Gly Lys Leu Glu Asp Ser
                645                 650                 655
Thr Ser Leu Ser Lys Ile Leu Asp Thr Val His Ser Cys Glu Arg Ala
            660                 665                 670
Arg Glu Leu Gln Lys Asp His Cys Glu Gln Arg Thr Gly Lys Met Glu
        675                 680                 685
Gln Met Lys Lys Lys Phe Cys Val Leu Lys Lys Lys Leu Ser Glu Ala
    690                 695                 700
Lys Glu Ile Lys Ser Gln Leu Glu Asn Gln Lys Val Lys Trp Glu Gln
705                 710                 715                 720
Glu Leu Cys Ser Val Arg Phe Leu Thr Leu Met Lys Met Lys Ile Ile
                725                 730                 735
Ser Tyr Met Lys Ile Ala Cys
            740
```

<210> 495
<211> 410
<212> PRT
<213> Homo sapiens

<400> 495

```
Met Lys Leu Leu Met Val Leu Met Leu Ala Ala Leu Ser Gln His Cys
 1               5                  10                  15
Tyr Ala Gly Ser Gly Cys Pro Leu Leu Glu Asn Val Ile Ser Lys Thr
            20                  25                  30
Ile Asn Pro Gln Val Ser Lys Thr Glu Tyr Lys Glu Leu Leu Gln Glu
        35                  40                  45
Phe Ile Asp Asp Asn Ala Thr Thr Asn Ala Ile Asp Glu Leu Lys Glu
    50                  55                  60
```

```
Cys Phe Leu Asn Gln Thr Asp Glu Thr Leu Ser Asn Val Glu Val Phe
65                  70                  75                  80
Met Gln Leu Ile Tyr Asp Ser Ser Leu Cys Asp Leu Phe Met Gly Thr
                85                  90                  95
Arg Ala Leu Gln Cys Glu Val Ser His Thr His Glu Asn Glu Asn Tyr
            100                 105                 110
Leu Leu His Glu Asn Cys Met Leu Lys Lys Glu Ile Ala Met Leu Lys
        115                 120                 125
Leu Glu Ile Ala Thr Leu Lys His Gln Tyr Gln Glu Lys Glu Asn Lys
    130                 135                 140
Tyr Phe Glu Asp Ile Lys Ile Leu Lys Glu Lys Asn Ala Glu Leu Gln
145                 150                 155                 160
Met Thr Leu Lys Leu Lys Glu Glu Ser Leu Thr Lys Arg Ala Ser Gln
                165                 170                 175
Tyr Ser Gly Gln Leu Lys Val Leu Ile Ala Glu Asn Thr Met Leu Thr
            180                 185                 190
Ser Lys Leu Lys Glu Lys Gln Asp Lys Glu Ile Leu Glu Ala Glu Ile
        195                 200                 205
Glu Ser His His Pro Arg Leu Ala Ser Ala Val Gln Asp His Asp Gln
    210                 215                 220
Ile Val Thr Ser Arg Lys Ser Gln Glu Pro Ala Phe His Ile Ala Gly
225                 230                 235                 240
Asp Ala Cys Leu Gln Arg Lys Met Asn Val Asp Val Ser Ser Thr Ile
                245                 250                 255
Tyr Asn Asn Glu Val Leu His Gln Pro Leu Ser Glu Ala Gln Arg Lys
            260                 265                 270
Ser Lys Ser Leu Lys Ile Asn Leu Asn Tyr Ala Gly Asp Ala Leu Arg
        275                 280                 285
Glu Asn Thr Leu Val Ser Glu His Ala Gln Arg Asp Gln Arg Glu Thr
    290                 295                 300
Gln Cys Gln Met Lys Glu Ala Glu His Met Tyr Gln Asn Glu Gln Asp
305                 310                 315                 320
Asn Val Asn Lys His Thr Glu Gln Gln Glu Ser Leu Asp Gln Lys Leu
                325                 330                 335
Phe Gln Leu Gln Ser Lys Asn Met Trp Leu Gln Gln Gln Leu Val His
            340                 345                 350
Ala His Lys Lys Ala Asp Asn Lys Ser Lys Ile Thr Ile Asp Ile His
        355                 360                 365
Phe Leu Glu Arg Lys Met Gln His His Leu Leu Lys Glu Lys Asn Glu
    370                 375                 380
Glu Ile Phe Asn Tyr Asn Asn His Leu Lys Asn Arg Ile Tyr Gln Tyr
385                 390                 395                 400
Glu Lys Glu Lys Ala Glu Thr Glu Val Ile
                405                 410


<210> 496
<211> 20
<212> PRT
<213> Homo sapiens

<400> 496
Ile Asp Glu Leu Lys Glu Cys Phe Leu Asn Gln Thr Asp Glu Thr Leu
 1               5                  10                  15
```

Ser Asn Val Glu
20

<210> 497
<211> 15
<212> PRT
<213> Homo sapiens

<400> 497
Thr Thr Asn Ala Ile Asp Glu Leu Lys Glu Cys Phe Leu Asn Gln
1 5 10 15

<210> 498
<211> 21
<212> PRT
<213> Homo sapiens

<400> 498
Ser Gln His Cys Tyr Ala Gly Ser Gly Cys Pro Leu Leu Glu Asn Val
1 5 10 15
Ile Ser Lys Thr Ile
20

<210> 499
<211> 20
<212> PRT
<213> Homo sapiens

<400> 499
Glu Tyr Lys Glu Leu Leu Gln Glu Phe Ile Asp Asp Asn Ala Thr Thr
1 5 10 15
Asn Ala Ile Asp
20

<210> 500
<211> 9
<212> PRT
<213> Homo sapiens

<400> 500
Lys Leu Leu Met Val Leu Met Leu Ala
1 5

<210> 501
<211> 13
<212> PRT
<213> Homo sapiens

<400> 501

Gln Glu Phe Ile Asp Asp Asn Ala Thr Thr Asn Ala Ile
1 5 10

<210> 502
<211> 13
<212> PRT
<213> Homo sapiens

<400> 502
Leu Lys Glu Cys Phe Leu Asn Gln Thr Asp Glu Thr Leu
1 5 10

<210> 503
<211> 93
<212> PRT
<213> Homo sapiens

<400> 503
Met Lys Leu Leu Met Val Leu Met Leu Ala Ala Leu Ser Gln His Cys
1 5 10 15
Tyr Ala Gly Ser Gly Cys Pro Leu Leu Glu Asn Val Ile Ser Lys Thr
20 25 30
Ile Asn Pro Gln Val Ser Lys Thr Glu Tyr Lys Glu Leu Leu Gln Glu
35 40 45
Phe Ile Asp Asp Asn Ala Thr Thr Asn Ala Ile Asp Glu Leu Lys Glu
50 55 60
Cys Phe Leu Asn Gln Thr Asp Glu Thr Leu Ser Asn Val Glu Val Phe
65 70 75 80
Met Gln Leu Ile Tyr Asp Ser Ser Leu Cys Asp Leu Phe
85 90

<210> 504
<211> 1964
<212> DNA
<213> Homo sapiens

<400> 504
gcatgctcga cgccccatgt gctgaaaggg cgaggagcct cctgcggcgg cccctgtgtc 60
cctgcctcta cctgcgcacc tgcatgtgtt caacccccgg gagaacacct ggcggcccct 120
gacccaggtg cccgaggagg ccccgcttcg gggctgcggt ctctgcacca tgcacaacta 180
cctgtttctg gcgggggggca tccgtggctc cggtgccaag gccgtctgct ccaacgaggt 240
cttctgctac aaccctctga ccaacatctg gagccaggtt cggcccatgc agcaggcccg 300
agcccagctc aagctggtgg ccctggacgg gctgctctat gccatcggtg gcgaatgcct 360
gtacagcatg gagtgctacg acccgcgaac agacgcctgg accccacgcg cgccactccc 420
cgcaggcacc ttccctgtgg cccacgaggc tgtggcctgc cgtggggaca tctacgtcac 480
cgggggtcac ctcttctacc gcctgctcag gtacagcccc gtgaaggatg cttgggacga 540
gtgcccatac agtgccagcc accggcgttc cagcgacatc gttgcactgg ggggcttcct 600
gtaccgcttc gacctgctgc ggggcgtggg cgccgccgtg atgcgctaca acacagtgac 660
cggctcctgg agcagggctg cctccctgcc cctgcccgcc cccgccccac tgcgctgcac 720
caccctgggc aacaccattt actgcctcaa cccccaggtc actgccacct tcacggtctc 780
tgggggggact gcccagttcc aggccaagga gctgcagccc ttccccttgg ggagcaccgg 840

ggtcctcagt ccattcatcc tgactctgcc ccctgaggac cggctgcaga cctcactctg 900
agtggcaggc agagaaccaa agctgcttcg ctgctctcca gggagaccct cctgggatgg 960
gcctgagagg ccggggctca gggaaggggc tgggatcgga acttcctgct cttgtttctg 1020
gacaactttc cccttctgct ttaaaggttg tcgattattt tgaagcccag actccctcag 1080
cctctttctg cccctcactc cacacccaga ctgtttcctg actcaattcc gtacctactt 1140
acagaccctc tcagcttgct gacacccccc tgtctgtggg actccctatt ccctagagcc 1200
agggactgat gcgtctccac agacaaggac ttggctcgct ggagctctgc tgagccgaga 1260
gaggaggggg tagaaaacat tcacacttcc tatgctctgt cagcaggaca gggagcaaaa 1320
acgtccccag gcaacgccct cgcctctggg actttctgcc tgtcctaagg cctccccagg 1380
taccaacccc gtagctatct gggtctgttt ggcactgtgg attctcaagg gcctagaacc 1440
cttgcctctg aaactggtcc gctggtgcag ccctgctgtc tgcagctcct gcccataccc 1500
ccagcccaca ccaggccagg cccactccgg gctcaccacc ctctgcagcc ttgtggggct 1560
ctcccagccc ctccagaagc ccacccccact tctcgccaac ccccgatctc taaatgaggc 1620
ctgagcgtca ccctagttct gccccttttt agctgtgtag acttggacga gacatttgac 1680
ttccctttct ccttgtctat aaaatgtgga cagtggacgt ctgtcaccca agagagttgt 1740
gggagacaag atcacagcta tgagcacctc gcacggtgtc caggatgcac agcacaatcc 1800
atgatgcgtt ttctcccctt acgcactttg aaacccatgc tagaaaagtg aatacatctg 1860
actgtgctcc actccaacct ccagcctgga tgtccctgtc tgggcccttt ttctgttttt 1920
tattctatgt tcagcaccac tggcaccaaa tacattttaa ttca 1964

<210> 505
<211> 732
<212> DNA
<213> Homo sapiens

<400> 505
atgcacaact acctgtttct ggcgggggggc atccgtggct ccggtgccaa ggccgtctgc 60
tccaacgagg tcttctgcta caaccctctg accaacatct ggagccaggt tcggcccatg 120
cagcaggccc gagcccagct caagctggtg gccctggacg ggctgctcta tgccatcggt 180
ggcgaatgcc tgtacagcat ggagtgctac gacccgcgaa cagacgcctg gaccccacgc 240
gcgccactcc ccgcaggcac cttccctgtg gcccacgagg ctgtggcctg ccgtggggac 300
atctacgtca ccgggggtca cctcttctac cgcctgctca ggtacagccc cgtgaaggat 360
gcttgggacg agtgcccata cagtgccagc caccggcgtt ccagcgacat cgttgcactg 420
gggggcttcc tgtaccgctt cgacctgctg cggggcgtgg gcgccgccgt gatgcgctac 480
aacacagtga ccggctcctg gagcagggct gcctccctgc ccctgcccgc ccccgcccca 540
ctgcgctgca ccaccctggg caacaccatt tactgcctca acccccaggt cactgccacc 600
ttcacggtct ctgggggggac tgcccagttc caggccaagg agctgcagcc cttccccttg 660
gggagcaccg gggtcctcag tccattcatc ctgactctgc cccctgagga ccggctgcag 720
acctcactct ga 732

<210> 506
<211> 729
<212> DNA
<213> Homo sapiens

<400> 506
atgcacaact acctgtttct ggcgggggggc atccgtggct ccggtgccaa ggccgtctgc 60
tccaacgagg tcttctgcta caaccctctg accaacatct ggagccaggt tcggcccatg 120
cagcaggccc gagcccagct caagctggtg gccctggacg ggctgctcta tgccatcggt 180
ggcgaatgcc tgtacagcat ggagtgctac gacccgcgaa cagacgcctg gaccccacgc 240
gcgccactcc ccgcaggcac cttccctgtg gcccacgagg ctgtggcctg ccgtggggac 300
atctacgtca ccgggggtca cctcttctac cgcctgctca ggtacagccc cgtgaaggat 360
gcttgggacg agtgcccata cagtgccagc caccggcgtt ccagcgacat cgttgcactg 420
gggggcttcc tgtaccgctt cgacctgctg cggggcgtgg gcgccgccgt gatgcgctac 480

aacacagtga ccggctcctg gagcagggct gcctccctgc ccctgcccgc ccccgcccca 540
ctgcgctgca ccaccctggg caacaccatt tactgcctca acccccaggt cactgccacc 600
ttcacggtct ctgggggggac tgcccagttc caggccaagg agctgcagcc cttccccttg 660
gggagcaccg gggtcctcag tccattcatc ctgactctgc cccctgagga ccggctgcag 720
acctcactc 729

<210> 507
<211> 243
<212> PRT
<213> Homo sapiens

<400> 507
Met His Asn Tyr Leu Phe Leu Ala Gly Gly Ile Arg Gly Ser Gly Ala
 1   5   10   15
Lys Ala Val Cys Ser Asn Glu Val Phe Cys Tyr Asn Pro Leu Thr Asn
            20   25   30
Ile Trp Ser Gln Val Arg Pro Met Gln Gln Ala Arg Ala Gln Leu Lys
        35   40   45
Leu Val Ala Leu Asp Gly Leu Leu Tyr Ala Ile Gly Gly Glu Cys Leu
    50   55   60
Tyr Ser Met Glu Cys Tyr Asp Pro Arg Thr Asp Ala Trp Thr Pro Arg
65   70   75   80
Ala Pro Leu Pro Ala Gly Thr Phe Pro Val Ala His Glu Ala Val Ala
                85   90   95
Cys Arg Gly Asp Ile Tyr Val Thr Gly Gly His Leu Phe Tyr Arg Leu
            100   105   110
Leu Arg Tyr Ser Pro Val Lys Asp Ala Trp Asp Glu Cys Pro Tyr Ser
        115   120   125
Ala Ser His Arg Arg Ser Ser Asp Ile Val Ala Leu Gly Gly Phe Leu
    130   135   140
Tyr Arg Phe Asp Leu Leu Arg Gly Val Gly Ala Ala Val Met Arg Tyr
145   150   155   160
Asn Thr Val Thr Gly Ser Trp Ser Arg Ala Ala Ser Leu Pro Leu Pro
                165   170   175
Ala Pro Ala Pro Leu Arg Cys Thr Thr Leu Gly Asn Thr Ile Tyr Cys
            180   185   190
Leu Asn Pro Gln Val Thr Ala Thr Phe Thr Val Ser Gly Gly Thr Ala
        195   200   205
Gln Phe Gln Ala Lys Glu Leu Gln Pro Phe Pro Leu Gly Ser Thr Gly
    210   215   220
Val Leu Ser Pro Phe Ile Leu Thr Leu Pro Pro Glu Asp Arg Leu Gln
225   230   235   240
Thr Ser Leu

<210> 508
<211> 158
<212> PRT
<213> Homo sapiens

<400> 508
Met His Asn Tyr Leu Phe Leu Ala Gly Gly Ile Arg Gly Ser Gly Ala
 1   5   10   15

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Lys Ala Val Cys Ser Asn Glu Val Phe Cys Tyr Asn Pro Leu Thr Asn
            20                  25                  30
Ile Trp Ser Gln Val Arg Pro Met Gln Gln Ala Arg Ala Gln Leu Lys
        35                  40                  45
Leu Val Ala Leu Asp Gly Leu Leu Tyr Ala Ile Gly Gly Glu Cys Leu
    50                  55                  60
Tyr Ser Met Glu Cys Tyr Asp Pro Arg Thr Asp Ala Trp Thr Pro Arg
65                  70                  75                  80
Ala Pro Leu Pro Ala Gly Thr Phe Pro Val Ala His Glu Ala Val Ala
                85                  90                  95
Cys Arg Gly Asp Ile Tyr Val Thr Gly Gly His Leu Phe Tyr Arg Leu
            100                 105                 110
Leu Arg Tyr Ser Pro Val Lys Asp Ala Trp Asp Glu Cys Pro Tyr Ser
        115                 120                 125
Ala Ser His Arg Arg Ser Ser Asp Ile Val Ala Leu Gly Gly Phe Leu
    130                 135                 140
Tyr Arg Phe Asp Leu Leu Arg Gly Val Gly Ala Ala Val Met
145                 150                 155
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<210> 509
<211> 85
<212> PRT
<213> Homo sapiens

<400> 509

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Arg Tyr Asn Thr Val Thr Gly Ser Trp Ser Arg Ala Ala Ser Leu Pro
 1               5                  10                  15
Leu Pro Ala Pro Ala Pro Leu Arg Cys Thr Thr Leu Gly Asn Thr Ile
            20                  25                  30
Tyr Cys Leu Asn Pro Gln Val Thr Ala Thr Phe Thr Val Ser Gly Gly
        35                  40                  45
Thr Ala Gln Phe Gln Ala Lys Glu Leu Gln Pro Phe Pro Leu Gly Ser
    50                  55                  60
Thr Gly Val Leu Ser Pro Phe Ile Leu Thr Leu Pro Pro Glu Asp Arg
65                  70                  75                  80
Leu Gln Thr Ser Leu
                85
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<210> 510
<211> 732
<212> DNA
<213> Homo sapiens

<400> 510

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atgcgacccc agggccccgc cgcctccccg cagcggctcc gcggcctcct gctgctcctg 60
ctgctgcagc tgcccgcgcc gtcgagcgcc tctgagatcc ccaaggggaa gcaaaaggcg 120
cagctccggc agagggaggt ggtggacctg tataatggaa tgtgcttaca agggccagca 180
ggagtgcctg gtcgagacgg gagccctggg gccaatgtta ttccgggtac acctgggatc 240
ccaggtcggg atggattcaa aggagaaaag ggggaatgtc tgagggaaag ctttgaggag 300
tcctggacac ccaactacaa gcagtgttca tggagttcat tgaattatgg catagatctt 360
gggaaaattg cggagtgtac atttacaaag atgcgttcaa atagtgctct aagagttttg 420
ttcagtggct cacttcggct aaaatgcaga aatgcatgct gtcagcgttg gtatttcaca 480
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ttcaatggag ctgaatgttc aggacctctt cccattgaag ctataattta tttggaccaa 540
ggaagccctg aaatgaattc aacaattaat attcatcgca cttcttctgt ggaaggactt 600
tgtgaaggaa ttggtgctgg attagtggat gttgctatct gggttggcac ttgttcagat 660
tacccaaaag gagatgcttc tactggatgg aattcagttt ctcgcatcat tattgaagaa 720
ctaccaaaat aa 732

<210> 511
<211> 729
<212> DNA
<213> Homo sapiens

<400> 511
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ctgctgcagc tgcccgcgcc gtcgagcgcc tctgagatcc ccaaggggaa gcaaaaggcg 120
cagctccggc agagggaggt ggtggacctg tataatggaa tgtgcttaca agggccagca 180
ggagtgcctg gtcgagacgg gagccctggg gccaatgtta ttccgggtac acctgggatc 240
ccaggtcggg atggattcaa aggagaaaag ggggaatgtc tgagggaaag ctttgaggag 300
tcctggacac ccaactacaa gcagtgttca tggagttcat tgaattatgg catagatctt 360
gggaaaattg cggagtgtac atttacaaag atgcgttcaa atagtgctct aagagttttg 420
ttcagtggct cacttcggct aaaatgcaga aatgcatgct gtcagcgttg gtatttcaca 480
ttcaatggag ctgaatgttc aggacctctt cccattgaag ctataattta tttggaccaa 540
ggaagccctg aaatgaattc aacaattaat attcatcgca cttcttctgt ggaaggactt 600
tgtgaaggaa ttggtgctgg attagtggat gttgctatct gggttggcac ttgttcagat 660
tacccaaaag gagatgcttc tactggatgg aattcagttt ctcgcatcat tattgaagaa 720
ctaccaaaa 729

<210> 512
<211> 837
<212> DNA
<213> Homo sapiens

<400> 512
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ggtctcctcc gcctccagct ccgcgctgcc cggcagccgg gagccatgcg accccagggc 120
cccgccgcct ccccgcagcg gctccgcggc ctcctgctgc tcctgctgct gcagctgccc 180
gcgccgtcga gcgcctctga gatccccaag gggaagcaaa aggcgcagct ccggcagagg 240
gaggtggtgg acctgtataa tggaatgtgc ttacaagggc cagcaggagt gcctggtcga 300
gacgggagcc ctggggccaa tgttattccg ggtacacctg ggatcccagg tcgggatgga 360
ttcaaaggag aaaaggggga atgtctgagg gaaagctttg aggagtcctg gacacccaac 420
tacaagcagt gttcatggag ttcattgaat tatggcatag atcttgggaa aattgcggag 480
tgtacattta caaagatgcg ttcaaatagt gctctaagag ttttgttcag tggctcactt 540
cggctaaaat gcagaaatgc atgctgtcag cgttggtatt tcacattcaa tggagctgaa 600
tgttcaggac ctcttcccat tgaagctata atttatttgg accaaggaag ccctgaaatg 660
aattcaacaa ttaatattca tcgcacttct tctgtggaag gactttgtga aggaattggt 720
gctggattag tggatgttgc tatctgggtt ggcacttgtt cagattaccc aaaaggagat 780
gcttctactg gatggaattc agtttctcgc atcattattg aagaactacc aaaataa 837

<210> 513
<211> 837
<212> DNA
<213> Homo sapiens

<400> 513
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ggtctcctcc gcctccagct ccgcgctgcc cggcagccgg gagccatgcg accccagggc 120
cccgccgcct ccccgcagcg gctccgcggc ctcctgctgc tcctgctgct gcagctgccc 180
gcgccgtcga gcgcctctga gatccccaag gggaagcaaa aggcgcagct ccggcagagg 240
gaggtggtgg acctgtataa tggaatgtgc ttacaagggc cagcaggagt gcctggtcga 300
gacgggagcc ctggggccaa tgttattccg ggtacacctg ggatcccagg tcgggatgga 360
ttcaaaggag aaaaggggga atgtctgagg gaaagctttg aggagtcctg gacacccaac 420
tacaagcagt gttcatggag ttcattgaat tatggcatag atcttgggaa aattgcggag 480
tgtacattta caaagatgcg ttcaaatagt gctctaagag ttttgttcag tggctcactt 540
cggctaaaat gcagaaatgc atgctgtcag cgttggtatt tcacattcaa tggagctgaa 600
tgttcaggac ctcttcccat tgaagctata atttatttgg accaaggaag ccctgaaatg 660
aattcaacaa ttaatattca tcgcacttct tctgtggaag gactttgtga aggaattggt 720
gctggattag tggatgttgc tatctgggtt ggcacttgtt cagattaccc aaaaggagat 780
gcttctactg gatggaattc agtttctcgc atcattattg aagaactacc aaaataa 837

<210> 514
<211> 243
<212> PRT
<213> Homo sapiens

<400> 514
Met Arg Pro Gln Gly Pro Ala Ala Ser Pro Gln Arg Leu Arg Gly Leu
 1   5   10   15
Leu Leu Leu Leu Leu Leu Gln Leu Pro Ala Pro Ser Ser Ala Ser Glu
            20   25   30
Ile Pro Lys Gly Lys Gln Lys Ala Gln Leu Arg Gln Arg Glu Val Val
        35   40   45
Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly Val Pro Gly
    50   55   60
Arg Asp Gly Ser Pro Gly Ala Asn Val Ile Pro Gly Thr Pro Gly Ile
65   70   75   80
Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys Leu Arg Glu
                85   90   95
Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys Ser Trp Ser
            100   105   110
Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu Cys Thr Phe
        115   120   125
Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe Ser Gly Ser
    130   135   140
Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp Tyr Phe Thr
145   150   155   160
Phe Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu Ala Ile Ile
                165   170   175
Tyr Leu Asp Gln Gly Ser Pro Glu Met Asn Ser Thr Ile Asn Ile His
            180   185   190
Arg Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Gly Ala Gly Leu
        195   200   205
Val Asp Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro Lys Gly
    210   215   220
Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Ile Glu Glu
225   230   235   240
Leu Pro Lys

<210> 515

<211> 278
<212> PRT
<213> Homo sapiens

<400> 515
Met Gln Pro Ala Ala Ala Ser Glu Arg Gly Gly Ala Asp Ala Asp His
1 5 10 15
Val Pro Leu Leu Gly Leu Leu Arg Leu Gln Leu Arg Ala Ala Arg Gln
20 25 30
Pro Gly Ala Met Arg Pro Gln Gly Pro Ala Ala Ser Pro Gln Arg Leu
35 40 45
Arg Gly Leu Leu Leu Leu Leu Leu Leu Gln Leu Pro Ala Pro Ser Ser
50 55 60
Ala Ser Glu Ile Pro Lys Gly Lys Gln Lys Ala Gln Leu Arg Gln Arg
65 70 75 80
Glu Val Val Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly
85 90 95
Val Pro Gly Arg Asp Gly Ser Pro Gly Ala Asn Val Ile Pro Gly Thr
100 105 110
Pro Gly Ile Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys
115 120 125
Leu Arg Glu Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys
130 135 140
Ser Trp Ser Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu
145 150 155 160
Cys Thr Phe Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe
165 170 175
Ser Gly Ser Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp
180 185 190
Tyr Phe Thr Phe Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu
195 200 205
Ala Ile Ile Tyr Leu Asp Gln Gly Ser Pro Glu Met Asn Ser Thr Ile
210 215 220
Asn Ile His Arg Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Gly
225 230 235 240
Ala Gly Leu Val Asp Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr
245 250 255
Pro Lys Gly Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile
260 265 270
Ile Glu Glu Leu Pro Lys
275

<210> 516
<211> 197
<212> PRT
<213> Homo sapiens

<400> 516
Met Arg Pro Gln Gly Pro Ala Ala Ser Pro Gln Arg Leu Arg Gly Leu
1 5 10 15
Leu Leu Leu Leu Leu Leu Gln Leu Pro Ala Pro Ser Ser Ala Ser Glu
20 25 30
Ile Pro Lys Gly Lys Gln Lys Ala Gln Leu Arg Gln Arg Glu Val Val

35 40 45
Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly Val Pro Gly
50 55 60
Arg Asp Gly Ser Pro Gly Ala Asn Val Ile Pro Gly Thr Pro Gly Ile
65 70 75 80
Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys Leu Arg Glu
85 90 95
Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys Ser Trp Ser
100 105 110
Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu Cys Thr Phe
115 120 125
Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe Ser Gly Ser
130 135 140
Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp Tyr Phe Thr
145 150 155 160
Phe Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu Ala Ile Ile
165 170 175
Tyr Leu Asp Gln Gly Ser Pro Glu Met Asn Ser Thr Ile Asn Ile His
180 185 190
Arg Thr Ser Ser Val
195

<210> 517
<211> 232
<212> PRT
<213> Homo sapiens

<400> 517
Met Gln Pro Ala Ala Ala Ser Glu Arg Gly Gly Ala Asp Ala Asp His
5 10 15
Val Pro Leu Leu Gly Leu Leu Arg Leu Gln Leu Arg Ala Ala Arg Gln
20 25 30
Pro Gly Ala Met Arg Pro Gln Gly Pro Ala Ala Ser Pro Gln Arg Leu
35 40 45
Arg Gly Leu Leu Leu Leu Leu Leu Leu Gln Leu Pro Ala Pro Ser Ser
50 55 60
Ala Ser Glu Ile Pro Lys Gly Lys Gln Lys Ala Gln Leu Arg Gln Arg
65 70 75 80
Glu Val Val Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly
85 90 95
Val Pro Gly Arg Asp Gly Ser Pro Gly Ala Asn Val Ile Pro Gly Thr
100 105 110
Pro Gly Ile Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys
115 120 125
Leu Arg Glu Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys
130 135 140
Ser Trp Ser Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu
145 150 155 160
Cys Thr Phe Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe
165 170 175
Ser Gly Ser Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp
180 185 190
Tyr Phe Thr Phe Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu

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        195                 200                 205
Ala Ile Ile Tyr Leu Asp Gln Gly Ser Pro Glu Met Asn Ser Thr Ile
    210                 215                 220
Asn Ile His Arg Thr Ser Ser Val
225                 230


<210> 518
<211> 46
<212> PRT
<213> Homo sapiens

<400> 518
Glu Gly Leu Cys Glu Gly Ile Gly Ala Gly Leu Val Asp Val Ala Ile
                  5                  10                  15
Trp Val Gly Thr Cys Ser Asp Tyr Pro Lys Gly Asp Ala Ser Thr Gly
             20                  25                  30
Trp Asn Ser Val Ser Arg Ile Ile Ile Glu Glu Leu Pro Lys
         35                  40                  45


<210> 519
<211> 26
<212> PRT
<213> Homo sapiens

<400> 519
Cys Ser Asp Tyr Pro Lys Gly Asp Ala Ser Thr Gly Trp Asn Ser Val
                  5                  10                  15
Ser Arg Ile Ile Ile Glu Glu Leu Pro Lys
             20                  25


<210> 520
<211> 60
<212> DNA
<213> Homo sapiens

<400> 520
aaaaatgagg agatatttaa ttacaataac catttaaaaa accgtatata tcaatatgaa 60

<210> 521
<211> 60
<212> DNA
<213> Homo sapiens

<400> 521
atgcaacatc atctcctaaa agagaaaaat gaggagatat ttaattacaa taaccattta 60

<210> 522
<211> 60
<212> DNA
<213> Homo sapiens
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<400> 522
gacaacaaaa gcaagataac aattgatatt cattttcttg agaggaaaat gcaacatcat 60

<210> 523
<211> 60
<212> DNA
<213> Homo sapiens

<400> 523
aaaaatatgt ggcttcaaca gcaattagtt catgcacata agaaagctga caacaaaagc 60

<210> 524
<211> 63
<212> DNA
<213> Homo sapiens

<400> 524
gatcagaaat tatttcaact acaaagcaaa aatatgtggc ttcaacagca attagttcat 60
gca 63

<210> 525
<211> 60
<212> DNA
<213> Homo sapiens

<400> 525
actgaacagc aggagtctct agatcagaaa ttatttcaac tacaaagcaa aaatatgtgg 60

<210> 526
<211> 63
<212> DNA
<213> Homo sapiens

<400> 526
gctcaaagga aatccaaaag cctaaaaatt aatctcaatt atgccggaga tgctctaaga 60
gaa 63

<210> 527
<211> 60
<212> DNA
<213> Homo sapiens

<400> 527
agtacgatat ataacaatga ggtgctccat caaccacttt ctgaagctca aaggaaatcc 60

<210> 528
<211> 60
<212> DNA
<213> Homo sapiens

<400> 528
agaaaaatga atgttgatgt gagtagtacg atatataaca atgaggtgct ccatcaacca 60

<210> 529

<211> 60
<212> DNA
<213> Homo sapiens

<400> 529
attgcaggag atgcttgttt gcaaagaaaa atgaatgttg atgtgagtag tacgatatat 60

<210> 530
<211> 60
<212> DNA
<213> Homo sapiens

<400> 530
aaaagtcaag aacctgcttt ccacattgca ggagatgctt gtttgcaaag aaaaatgaat 60

<210> 531
<211> 60
<212> DNA
<213> Homo sapiens

<400> 531
gaaaataaat actttgagga cattaagatt ttaaaagaaa agaatgctga acttcagatg 60

<210> 532
<211> 60
<212> DNA
<213> Homo sapiens

<400> 532
ctgaaacacc aataccagga aaaggaaaat aaatactttg aggacattaa gattttaaaa 60

<210> 533
<211> 63
<212> DNA
<213> Homo sapiens

<400> 533
aattgcatgt tgaaaaagga aattgccatg ctaaaactgg aaatagccac actgaaacac 60
caa 63

<210> 534
<211> 21
<212> PRT
<213> Homo sapiens

<400> 534
Asn Cys Met Leu Lys Lys Glu Ile Ala Met Leu Lys Leu Glu Ile Ala
1 5 10 15
Thr Leu Lys His Gln
20

<210> 535
<211> 20

<212> PRT
<213> Homo sapiens

<400> 535
Leu Lys His Gln Tyr Gln Glu Lys Glu Asn Lys Tyr Phe Glu Asp Ile
5 10 15
Lys Ile Leu Lys
20

<210> 536
<211> 20
<212> PRT
<213> Homo sapiens

<400> 536
Glu Asn Lys Tyr Phe Glu Asp Ile Lys Ile Leu Lys Glu Lys Asn Ala
5 10 15
Glu Leu Gln Met
20

<210> 537
<211> 20
<212> PRT
<213> Homo sapiens

<400> 537
Lys Ser Gln Glu Pro Ala Phe His Ile Ala Gly Asp Ala Cys Leu Gln
5 10 15
Arg Lys Met Asn
20

<210> 538
<211> 20
<212> PRT
<213> Homo sapiens

<400> 538
Ile Ala Gly Asp Ala Cys Leu Gln Arg Lys Met Asn Val Asp Val Ser
5 10 15
Ser Thr Ile Tyr
20

<210> 539
<211> 20
<212> PRT
<213> Homo sapiens

<400> 539
Arg Lys Met Asn Val Asp Val Ser Ser Thr Ile Tyr Asn Asn Glu Val
5 10 15

Leu His Gln Pro
20

<210> 540
<211> 20
<212> PRT
<213> Homo sapiens

<400> 540
Ser Thr Ile Tyr Asn Asn Glu Val Leu His Gln Pro Leu Ser Glu Ala
5 10 15
Gln Arg Lys Ser
20

<210> 541
<211> 21
<212> PRT
<213> Homo sapiens

<400> 541
Ala Gln Arg Lys Ser Lys Ser Leu Lys Ile Asn Leu Asn Tyr Ala Gly
5 10 15
Asp Ala Leu Arg Glu
20

<210> 542
<211> 20
<212> PRT
<213> Homo sapiens

<400> 542
Thr Glu Gln Gln Glu Ser Leu Asp Gln Lys Leu Phe Gln Leu Gln Ser
5 10 15
Lys Asn Met Trp
20

<210> 543
<211> 21
<212> PRT
<213> Homo sapiens

<400> 543
Asp Gln Lys Leu Phe Gln Leu Gln Ser Lys Asn Met Trp Leu Gln Gln
5 10 15
Gln Leu Val His Ala
20

<210> 544
<211> 20

<212> PRT
<213> Homo sapiens

<400> 544
Lys Asn Met Trp Leu Gln Gln Gln Leu Val His Ala His Lys Lys Ala
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Asp Asn Lys Ser
20

<210> 545
<211> 20
<212> PRT
<213> Homo sapiens

<400> 545
Asp Asn Lys Ser Lys Ile Thr Ile Asp Ile His Phe Leu Glu Arg Lys
5 10 15
Met Gln His His
20

<210> 546
<211> 20
<212> PRT
<213> Homo sapiens

<400> 546
Met Gln His His Leu Leu Lys Glu Lys Asn Glu Glu Ile Phe Asn Tyr
5 10 15
Asn Asn His Leu
20

<210> 547
<211> 20
<212> PRT
<213> Homo sapiens

<400> 547
Lys Asn Glu Glu Ile Phe Asn Tyr Asn Asn His Leu Lys Asn Arg Ile
5 10 15
Tyr Gln Tyr Glu
20

<210> 548
<211> 3045
<212> DNA
<213> Homo sapiens

<400> 548
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aaatttacgt gggcagcaaa aggaagacct aggaagatcg catgggagaa aaaagaaaca 120
cctgtaaaga ctggatgcgt ggcaagagta acatctaata aaactaaagt tttggaaaaa 180
ggaagatcta agatgattgc atgtcctaca aaagaatcat ctacaaaagc aagtgccaat 240
gatcagaggt tcccatcaga atccaaacaa gaggaagatg aagaatattc ttgtgattct 300
cggagtctct ttgagagttc tgcaaagatt caagtgtgta tacctgagtc tatatatcaa 360
aaagtaatgg agataaatag agaagtagaa gagcctccta agaagccatc tgccttcaag 420
cctgccattg aaatgcaaaa ctctgttcca aataaagcct ttgaattgaa gaatgaacaa 480
acattgagag cagatccgat gttcccacca gaatccaaac aaaaggacta tgaagaaaat 540
tcttgggatt ctgagagtct ctgtgagact gtttcacaga aggatgtgtg tttacccaag 600
gctacacatc aaaaagaaat agataaaata aatggaaaat tagaagagtc tcctaataaa 660
gatggtcttc tgaaggctac ctgcggaatg aaagtttcta ttccaactaa agccttagaa 720
ttgaaggaca tgcaaacttt caaagcagag cctccgggga agccatctgc cttcgagcct 780
gccactgaaa tgcaaaagtc tgtcccaaat aaagccttgg aattgaaaaa tgaacaaaca 840
ttgagagcag atgagatact cccatcagaa tccaaacaaa aggactatga agaaaattct 900
tgggatactg agagtctctg tgagactgtt tcacagaagg atgtgtgttt acccaaggct 960
gcgcatcaaa aagaaataga taaaataaat ggaaaattag aagggtctcc tggtaaagat 1020
ggtcttctta aggctaactg cggaatgaaa gtttctattc caactaaagc cttagaattg 1080
atggacatgc aaactttcaa agcagagcct cccgagaagc catctgcctt cgagcctgcc 1140
attgaaatgc aaaagtctgt tccaaataaa gccttggaat tgaagaatga acaaacattg 1200
agagcagatg agatactccc atcagaatcc aaacaaaagg actatgaaga aagttcttgg 1260
gattctgaga gtctctgtga gactgtttca cagaaggatg tgtgtttacc caaggctgcg 1320
catcaaaaag aaatagataa aataaatgga aaattagaag agtctcctga taatgatggt 1380
ttctgaagt ctccctgcag aatgaaagtt tctattccaa ctaaagcctt agaattgatg 1440
gacatgcaaa ctttcaaagc agagcctccc gagaagccat ctgccttcga gcctgccatt 1500
gaaatgcaaa agtctgttcc aaataaagcc ttggaattga agaatgaaca aacattgaga 1560
gcagatcaga tgttcccttc agaatcaaaa caaaagaacg ttgaagaaaa ttcttgggat 1620
tctgagagtc tccgtgagac tgtttcacag aaggatgtgt gtgtacccaa ggctacacat 1680
caaaaagaaa tggataaaat aagtggaaaa ttagaagatt caactagcct atcaaaaatc 1740
ttggatacag ttcattcttg tgaaagagca agggaacttc aaaaagatca ctgtgaacaa 1800
cgtacaggaa aaatggaaca aatgaaaaag aagttttgtg tactgaaaaa gaaactgtca 1860
gaagcaaaag aaataaaatc acagttagag aaccaaaaag ttaaatggga acaagagctc 1920
tgcagtgtga gattgacttt aaaccaagaa gaagagaaga gaagaaatgc cgatatatta 1980
aatgaaaaaa ttagggaaga attaggaaga atcgaagagc agcataggaa agagttagaa 2040
gtgaaacaac aacttgaaca ggctctcaga atacaagata tagaattgaa gagtgtagaa 2100
agtaatttaa atcaggtttc tcacactcat gaaaatgaaa attatctctt acatgaaaat 2160
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gaacaagata atgtgaacaa acacactgaa cagcaggagt ctctagatca gaaattattt 2820
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gacaacaaaa gcaagataac aattgatatt cattttcttg agaggaaaat gcaacatcat 2940
ctcctaaaag agaaaaatga ggagatattt aattacaata accatttaaa aaaccgtata 3000
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<210> 549
<211> 1953
<212> DNA

<213> Homo sapiens

<220>
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<222> 985
<223> n = A,T,C or G

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tctaataaaa ctaaagtttt ggaaaaagga agatctaaga tgattgcatg tcctacaaaa 180
gaatcatcta caaaagcaag tgccaatgat cagaggttcc catcagaatc caaacaagag 240
gaagatgaag aatattcttg tgattctcgg agtctctttg agagttctgc aaagattcaa 300
gtgtgtatac ctgagtctat atatcaaaaa gtaatggaga taaatagaga agtagaagag 360
cctcctaaga agccatctgc cttcaagcct gccattgaaa tgcaaaactc tgttccaaat 420
aaagcctttg aattgaagaa tgaacaaaca ttgagagcag atccgatgtt cccaccagaa 480
tccaaacaaa aggactatga agaaaattct tgggattctg agagtctctg tgagactgtt 540
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ggaaaattag aagagtctcc taataaagat ggtcttctga aggctacctg cggaatgaaa 660
gtttctattc caactaaagc cttagaattg aaggacatgc aaactttcaa agcagagcct 720
ccggggaagc catctgcctt cgagcctgcc actgaaatgc aaaagtctgt cccaaataaa 780
gccttggaat tgaaaaatga acaaacattg agagcagatg agatactccc atcagaatcc 840
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gaattgaaga atgaacaaac attgagagca gatcagatgt tcccttcaga atcaaaacaa 1560
aagaacgttg aagaaaattc ttgggattct gagagtctcc gtgagactgt ttcacagaag 1620
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gaacttcaaa aagatcactg tgaacaacgt acaggaaaaa tggaacaaat gaaaaagaag 1800
ttttgtgtac tgaaaaagaa actgtcagaa gcaaaagaaa taaaatcaca gttagagaac 1860
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aaaattatct cttacatgaa aattgcatgt tga 1953

<210> 550
<211> 978
<212> DNA
<213> Homo sapiens

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ctaaaactgg aaatagccac actgaaacac caataccagg aaaaggaaaa taaatacttt 180
gaggacatta agattttaaa agaaaagaat gctgaacttc agatgaccct aaaactgaaa 240
gaggaatcat taactaaaag ggcatctcaa tatagtgggc agcttaaagt tctgatagct 300
gagaacacaa tgctcacttc taaattgaag gaaaaacaag acaaagaaat actagaggca 360

gaaattgaat cacaccatcc tagactggct tctgctgtac aagaccatga tcaaattgtg 420
acatcaagaa aaagtcaaga acctgctttc cacattgcag gagatgcttg tttgcaaaga 480
aaaatgaatg ttgatgtgag tagtacgata tataacaatg aggtgctcca tcaaccactt 540
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ctaagagaaa atacattggt ttcagaacat gcacaaagag accaacgtga aacacagtgt 660
caaatgaagg aagctgaaca catgtatcaa aacgaacaag ataatgtgaa caaacacact 720
gaacagcagg agtctctaga tcagaaatta tttcaactac aaagcaaaaa tatgtggctt 780
caacagcaat tagttcatgc acataagaaa gctgacaaca aaagcaagat aacaattgat 840
attcattttc ttgagaggaa aatgcaacat catctcctaa aagagaaaaa tgaggagata 900
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acagaagtta tataatag 978

<210> 551
<211> 324
<212> PRT
<213> Homo sapiens

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Val Ser His Thr His Glu Asn Glu Asn Tyr Leu Leu His Glu Asn Cys
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Met Leu Lys Lys Glu Ile Ala Met Leu Lys Leu Glu Ile Ala Thr Leu
35 40 45

Lys His Gln Tyr Gln Glu Lys Glu Asn Lys Tyr Phe Glu Asp Ile Lys
50 55 60

Ile Leu Lys Glu Lys Asn Ala Glu Leu Gln Met Thr Leu Lys Leu Lys
65 70 75 80

Glu Glu Ser Leu Thr Lys Arg Ala Ser Gln Tyr Ser Gly Gln Leu Lys
85 90 95

Val Leu Ile Ala Glu Asn Thr Met Leu Thr Ser Lys Leu Lys Glu Lys
100 105 110

Gln Asp Lys Glu Ile Leu Glu Ala Glu Ile Glu Ser His His Pro Arg
115 120 125

Leu Ala Ser Ala Val Gln Asp His Asp Gln Ile Val Thr Ser Arg Lys
130 135 140

Ser Gln Glu Pro Ala Phe His Ile Ala Gly Asp Ala Cys Leu Gln Arg
145 150 155 160

Lys Met Asn Val Asp Val Ser Ser Thr Ile Tyr Asn Asn Glu Val Leu
165 170 175

His Gln Pro Leu Ser Glu Ala Gln Arg Lys Ser Lys Ser Leu Lys Ile
180 185 190

Asn Leu Asn Tyr Ala Gly Asp Ala Leu Arg Glu Asn Thr Leu Val Ser
        195   200   205

Glu His Ala Gln Arg Asp Gln Arg Glu Thr Gln Cys Gln Met Lys Glu
    210   215   220

Ala Glu His Met Tyr Gln Asn Glu Gln Asp Asn Val Asn Lys His Thr
225   230   235   240

Glu Gln Gln Glu Ser Leu Asp Gln Lys Leu Phe Gln Leu Gln Ser Lys
                245   250   255

Asn Met Trp Leu Gln Gln Gln Leu Val His Ala His Lys Lys Ala Asp
            260   265   270

Asn Lys Ser Lys Ile Thr Ile Asp Ile His Phe Leu Glu Arg Lys Met
        275   280   285

Gln His His Leu Leu Lys Glu Lys Asn Glu Glu Ile Phe Asn Tyr Asn
    290   295   300

Asn His Leu Lys Asn Arg Ile Tyr Gln Tyr Glu Lys Glu Lys Ala Glu
305   310   315   320

Thr Glu Val Ile

<210> 552
<211> 661
<212> PRT
<213> Homo sapiens

<400> 552
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Glu Thr Ser Glu Lys Phe Thr Trp Ala Ala Lys Gly Arg Pro Arg Lys
            20   25   30

Ile Ala Trp Glu Lys Lys Glu Thr Pro Val Lys Thr Gly Cys Val Ala
        35   40   45

Arg Val Thr Ser Asn Lys Thr Lys Val Leu Glu Lys Gly Arg Ser Lys
    50   55   60

Met Ile Ala Cys Pro Thr Lys Glu Ser Ser Thr Lys Ala Ser Ala Asn
65   70   75   80

Asp Gln Arg Phe Pro Ser Glu Ser Lys Gln Glu Glu Asp Glu Glu Tyr
                85   90   95

Ser Cys Asp Ser Arg Ser Leu Phe Glu Ser Ser Ala Lys Ile Gln Val
            100   105   110

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Cys Ile Pro Glu Ser Ile Tyr Gln Lys Val Met Glu Ile Asn Arg Glu
        115                 120                 125

Val Glu Glu Pro Pro Lys Lys Pro Ser Ala Phe Lys Pro Ala Ile Glu
    130                 135                 140

Met Gln Asn Ser Val Pro Asn Lys Ala Phe Glu Leu Lys Asn Glu Gln
145                 150                 155                 160

Thr Leu Arg Ala Asp Pro Met Phe Pro Pro Glu Ser Lys Gln Lys Asp
                165                 170                 175

Tyr Glu Glu Asn Ser Trp Asp Ser Glu Ser Leu Cys Glu Thr Val Ser
            180                 185                 190

Gln Lys Asp Val Cys Leu Pro Lys Ala Thr His Gln Lys Glu Ile Asp
        195                 200                 205

Lys Ile Asn Gly Lys Leu Glu Glu Ser Pro Asn Lys Asp Gly Leu Leu
    210                 215                 220

Lys Ala Thr Cys Gly Met Lys Val Ser Ile Pro Thr Lys Ala Leu Glu
225                 230                 235                 240

Leu Lys Asp Met Gln Thr Phe Lys Ala Glu Pro Pro Gly Lys Pro Ser
                245                 250                 255

Ala Phe Glu Pro Ala Thr Glu Met Gln Lys Ser Val Pro Asn Lys Ala
            260                 265                 270

Leu Glu Leu Lys Asn Glu Gln Thr Leu Arg Ala Asp Glu Ile Leu Pro
        275                 280                 285

Ser Glu Ser Lys Gln Lys Asp Tyr Glu Glu Asn Ser Trp Asp Thr Glu
    290                 295                 300

Ser Leu Cys Glu Thr Val Ser Gln Lys Asp Val Cys Leu Pro Lys Ala
305                 310                 315                 320

Ala His Gln Lys Glu Ile Asp Lys Ile Asn Gly Lys Leu Glu Gly Ser
                325                 330                 335

Pro Gly Lys Asp Gly Leu Leu Lys Ala Asn Cys Gly Met Lys Val Ser
            340                 345                 350

Ile Pro Thr Lys Ala Leu Glu Leu Met Asp Met Gln Thr Phe Lys Ala
        355                 360                 365

Glu Pro Pro Glu Lys Pro Ser Ala Phe Glu Pro Ala Ile Glu Met Gln
    370                 375                 380

Lys Ser Val Pro Asn Lys Ala Leu Glu Leu Lys Asn Glu Gln Thr Leu
385                 390                 395                 400
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Arg Ala Asp Glu Ile Leu Pro Ser Glu Ser Lys Gln Lys Asp Tyr Glu
                405                 410                 415

Glu Ser Ser Trp Asp Ser Glu Ser Leu Cys Glu Thr Val Ser Gln Lys
            420                 425                 430

Asp Val Cys Leu Pro Lys Ala Ala His Gln Lys Glu Ile Asp Lys Ile
        435                 440                 445

Asn Gly Lys Leu Glu Glu Ser Pro Asp Asn Asp Gly Phe Leu Lys Ser
    450                 455                 460

Pro Cys Arg Met Lys Val Ser Ile Pro Thr Lys Ala Leu Glu Leu Met
465                 470                 475                 480

Asp Met Gln Thr Phe Lys Ala Glu Pro Pro Glu Lys Pro Ser Ala Phe
                485                 490                 495

Glu Pro Ala Ile Glu Met Gln Lys Ser Val Pro Asn Lys Ala Leu Glu
            500                 505                 510

Leu Lys Asn Glu Gln Thr Leu Arg Ala Asp Gln Met Phe Pro Ser Glu
        515                 520                 525

Ser Lys Gln Lys Asn Val Glu Glu Asn Ser Trp Asp Ser Glu Ser Leu
    530                 535                 540

Arg Glu Thr Val Ser Gln Lys Asp Val Cys Val Pro Lys Ala Thr His
545                 550                 555                 560

Gln Lys Glu Met Asp Lys Ile Ser Gly Lys Leu Glu Asp Ser Thr Ser
                565                 570                 575

Leu Ser Lys Ile Leu Asp Thr Val His Ser Cys Glu Arg Ala Arg Glu
            580                 585                 590

Leu Gln Lys Asp His Cys Glu Gln Arg Thr Gly Lys Met Glu Gln Met
        595                 600                 605

Lys Lys Lys Phe Cys Val Leu Lys Lys Lys Leu Ser Glu Ala Lys Glu
    610                 615                 620

Ile Lys Ser Gln Leu Glu Asn Gln Lys Val Lys Trp Glu Gln Glu Leu
625                 630                 635                 640

Cys Ser Val Arg Phe Leu Thr Leu Met Lys Met Lys Ile Ile Ser Tyr
                645                 650                 655

Met Lys Ile Ala Cys
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<210> 553

<211> 1013
<212> PRT
<213> Homo sapiens

<400> 553

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Met Gln His His His His His His Val Gly Ser Met Ser Pro Ala Lys
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Glu Thr Ser Glu Lys Phe Thr Trp Ala Ala Lys Gly Arg Pro Arg Lys
             20                  25                  30

Ile Ala Trp Glu Lys Lys Glu Thr Pro Val Lys Thr Gly Cys Val Ala
         35                  40                  45

Arg Val Thr Ser Asn Lys Thr Lys Val Leu Glu Lys Gly Arg Ser Lys
     50                  55                  60

Met Ile Ala Cys Pro Thr Lys Glu Ser Ser Thr Lys Ala Ser Ala Asn
 65                  70                  75                  80

Asp Gln Arg Phe Pro Ser Glu Ser Lys Gln Glu Glu Asp Glu Glu Tyr
                 85                  90                  95

Ser Cys Asp Ser Arg Ser Leu Phe Glu Ser Ser Ala Lys Ile Gln Val
            100                 105                 110

Cys Ile Pro Glu Ser Ile Tyr Gln Lys Val Met Glu Ile Asn Arg Glu
        115                 120                 125

Val Glu Glu Pro Pro Lys Lys Pro Ser Ala Phe Lys Pro Ala Ile Glu
    130                 135                 140

Met Gln Asn Ser Val Pro Asn Lys Ala Phe Glu Leu Lys Asn Glu Gln
145                 150                 155                 160

Thr Leu Arg Ala Asp Pro Met Phe Pro Pro Glu Ser Lys Gln Lys Asp
                165                 170                 175

Tyr Glu Glu Asn Ser Trp Asp Ser Glu Ser Leu Cys Glu Thr Val Ser
            180                 185                 190

Gln Lys Asp Val Cys Leu Pro Lys Ala Thr His Gln Lys Glu Ile Asp
        195                 200                 205

Lys Ile Asn Gly Lys Leu Glu Glu Ser Pro Asn Lys Asp Gly Leu Leu
    210                 215                 220

Lys Ala Thr Cys Gly Met Lys Val Ser Ile Pro Thr Lys Ala Leu Glu
225                 230                 235                 240

Leu Lys Asp Met Gln Thr Phe Lys Ala Glu Pro Pro Gly Lys Pro Ser
                245                 250                 255

Ala Phe Glu Pro Ala Thr Glu Met Gln Lys Ser Val Pro Asn Lys Ala
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260 265 270

Leu Glu Leu Lys Asn Glu Gln Thr Leu Arg Ala Asp Glu Ile Leu Pro
275 280 285

Ser Glu Ser Lys Gln Lys Asp Tyr Glu Glu Asn Ser Trp Asp Thr Glu
290 295 300

Ser Leu Cys Glu Thr Val Ser Gln Lys Asp Val Cys Leu Pro Lys Ala
305 310 315 320

Ala His Gln Lys Glu Ile Asp Lys Ile Asn Gly Lys Leu Glu Gly Ser
325 330 335

Pro Gly Lys Asp Gly Leu Leu Lys Ala Asn Cys Gly Met Lys Val Ser
340 345 350

Ile Pro Thr Lys Ala Leu Glu Leu Met Asp Met Gln Thr Phe Lys Ala
355 360 365

Glu Pro Pro Glu Lys Pro Ser Ala Phe Glu Pro Ala Ile Glu Met Gln
370 375 380

Lys Ser Val Pro Asn Lys Ala Leu Glu Leu Lys Asn Glu Gln Thr Leu
385 390 395 400

Arg Ala Asp Glu Ile Leu Pro Ser Glu Ser Lys Gln Lys Asp Tyr Glu
405 410 415

Glu Ser Ser Trp Asp Ser Glu Ser Leu Cys Glu Thr Val Ser Gln Lys
420 425 430

Asp Val Cys Leu Pro Lys Ala Ala His Gln Lys Glu Ile Asp Lys Ile
435 440 445

Asn Gly Lys Leu Glu Glu Ser Pro Asp Asn Asp Gly Phe Leu Lys Ser
450 455 460

Pro Cys Arg Met Lys Val Ser Ile Pro Thr Lys Ala Leu Glu Leu Met
465 470 475 480

Asp Met Gln Thr Phe Lys Ala Glu Pro Pro Glu Lys Pro Ser Ala Phe
485 490 495

Glu Pro Ala Ile Glu Met Gln Lys Ser Val Pro Asn Lys Ala Leu Glu
500 505 510

Leu Lys Asn Glu Gln Thr Leu Arg Ala Asp Gln Met Phe Pro Ser Glu
515 520 525

Ser Lys Gln Lys Asn Val Glu Glu Asn Ser Trp Asp Ser Glu Ser Leu
530 535 540

Arg Glu Thr Val Ser Gln Lys Asp Val Cys Val Pro Lys Ala Thr His

545 550 555 560

Gln Lys Glu Met Asp Lys Ile Ser Gly Lys Leu Glu Asp Ser Thr Ser
565 570 575

Leu Ser Lys Ile Leu Asp Thr Val His Ser Cys Glu Arg Ala Arg Glu
580 585 590

Leu Gln Lys Asp His Cys Glu Gln Arg Thr Gly Lys Met Glu Gln Met
595 600 605

Lys Lys Lys Phe Cys Val Leu Lys Lys Lys Leu Ser Glu Ala Lys Glu
610 615 620

Ile Lys Ser Gln Leu Glu Asn Gln Lys Val Lys Trp Glu Gln Glu Leu
625 630 635 640

Cys Ser Val Arg Leu Thr Leu Asn Gln Glu Glu Glu Lys Arg Arg Asn
645 650 655

Ala Asp Ile Leu Asn Glu Lys Ile Arg Glu Glu Leu Gly Arg Ile Glu
660 665 670

Glu Gln His Arg Lys Glu Leu Glu Val Lys Gln Gln Leu Glu Gln Ala
675 680 685

Leu Arg Ile Gln Asp Ile Glu Leu Lys Ser Val Glu Ser Asn Leu Asn
690 695 700

Gln Val Ser His Thr His Glu Asn Glu Asn Tyr Leu Leu His Glu Asn
705 710 715 720

Cys Met Leu Lys Lys Glu Ile Ala Met Leu Lys Leu Glu Ile Ala Thr
725 730 735

Leu Lys His Gln Tyr Gln Glu Lys Glu Asn Lys Tyr Phe Glu Asp Ile
740 745 750

Lys Ile Leu Lys Glu Lys Asn Ala Glu Leu Gln Met Thr Leu Lys Leu
755 760 765

Lys Glu Glu Ser Leu Thr Lys Arg Ala Ser Gln Tyr Ser Gly Gln Leu
770 775 780

Lys Val Leu Ile Ala Glu Asn Thr Met Leu Thr Ser Lys Leu Lys Glu
785 790 795 800

Lys Gln Asp Lys Glu Ile Leu Glu Ala Glu Ile Glu Ser His His Pro
805 810 815

Arg Leu Ala Ser Ala Val Gln Asp His Asp Gln Ile Val Thr Ser Arg
820 825 830

Lys Ser Gln Glu Pro Ala Phe His Ile Ala Gly Asp Ala Cys Leu Gln

835 840 845

Arg Lys Met Asn Val Asp Val Ser Ser Thr Ile Tyr Asn Asn Glu Val
850 855 860

Leu His Gln Pro Leu Ser Glu Ala Gln Arg Lys Ser Lys Ser Leu Lys
865 870 875 880

Ile Asn Leu Asn Tyr Ala Gly Asp Ala Leu Arg Glu Asn Thr Leu Val
885 890 895

Ser Glu His Ala Gln Arg Asp Gln Arg Glu Thr Gln Cys Gln Met Lys
900 905 910

Glu Ala Glu His Met Tyr Gln Asn Glu Gln Asp Asn Val Asn Lys His
915 920 925

Thr Glu Gln Gln Glu Ser Leu Asp Gln Lys Leu Phe Gln Leu Gln Ser
930 935 940

Lys Asn Met Trp Leu Gln Gln Gln Leu Val His Ala His Lys Lys Ala
945 950 955 960

Asp Asn Lys Ser Lys Ile Thr Ile Asp Ile His Phe Leu Glu Arg Lys
965 970 975

Met Gln His His Leu Leu Lys Glu Lys Asn Glu Glu Ile Phe Asn Tyr
980 985 990

Asn Asn His Leu Lys Asn Arg Ile Tyr Gln Tyr Glu Lys Glu Lys Ala
995 1000 1005

Glu Thr Glu Val Ile
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<210> 554
<211> 25
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<213> Artificial Sequence

<220>
<223> PCR primer

<400> 554
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<210> 555
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<212> DNA
<213> Artificial Sequence

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<223> PCR primer

<400> 555
cgagaattca atacttaaga agaccatctt taccag 36

<210> 556
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<212> DNA
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<400> 556
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<210> 557
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<400> 558
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<210> 559
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<400> 559
cgcgcagaat tctattatat aacttctgtt tctgc 35

<210> 560
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<212> DNA
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<223> PCR primer

<400> 560
ggggaattgt gagcggataa caattc 26

<210> 561
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<212> DNA
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<213> Artificial Sequence

<220>
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<400> 563
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<210> 564
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<212> DNA

<213> Homo sapiens

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Ala Asp Gln Met Phe Pro Ser Glu Ser Lys Gln Lys Lys Val Glu Glu
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gaaagcttgg tggaaaaaac acctgatgag gctgcatcct tggtggaggg aacatctgac 840
aaaattcaat gtttggagaa agcgacatct ggaaagttcg aacagtcagc agaagaaaca 900
cctagggaaa ttacgagtcc tgcaaaagaa acatctgaga aatttacgtg gccagcaaaa 960
ggaagaccta ggaagatcgc atgggagaaa aaagaagaca cacctaggga aattatgagt 1020
cccgcaaaag aaacatctga gaaatttacg tgggcagcaa aaggaagacc taggaagatc 1080
gcatgggaga aaaaagaaac acctgtaaag actggatgcg tggcaagagt aacatctaat 1140
aaaactaaag ttttggaaaa aggaagatct aagatgattg catgtcctac aaaagaatc  1199
```

<210> 570
<211> 399
<212> PRT
<213> Homo sapiens

<400> 570

```
Thr Lys Arg Lys Lys Thr Ile Asn Leu Asn Ile Gln Asp Ala Gln Lys
                  5                  10                  15

Arg Thr Ala Leu His Trp Ala Cys Val Asn Gly His Glu Glu Val Val
             20                  25                  30

Thr Phe Leu Val Asp Arg Lys Cys Gln Leu Asp Val Leu Asp Gly Glu
         35                  40                  45

His Arg Thr Pro Leu Met Lys Ala Leu Gln Cys His Gln Glu Ala Cys
     50                  55                  60

Ala Asn Ile Leu Ile Asp Ser Gly Ala Asp Ile Asn Leu Val Asp Val
 65                  70                  75                  80

Tyr Gly Asn Met Ala Leu His Tyr Ala Val Tyr Ser Glu Ile Leu Ser
                 85                  90                  95

Val Val Ala Lys Leu Leu Ser His Gly Ala Val Ile Glu Val His Asn
            100                 105                 110

Lys Ala Ser Leu Thr Pro Leu Leu Leu Ser Ile Thr Lys Arg Ser Glu
        115                 120                 125

Gln Ile Val Glu Phe Leu Leu Ile Lys Asn Ala Asn Ala Asn Ala Val
    130                 135                 140

Asn Lys Tyr Lys Cys Thr Ala Leu Met Leu Ala Val Cys His Gly Ser
145                 150                 155                 160

Ser Glu Ile Val Gly Met Leu Leu Gln Gln Asn Val Asp Val Phe Ala
                165                 170                 175

Ala Asp Ile Cys Gly Val Thr Ala Glu His Tyr Ala Val Thr Cys Gly
            180                 185                 190

Phe His His Ile His Glu Gln Ile Met Glu Tyr Ile Arg Lys Leu Ser
        195                 200                 205
```

```
Lys Asn His Gln Asn Thr Asn Pro Glu Gly Thr Ser Ala Gly Thr Pro
    210                 215                 220

Asp Glu Ala Ala Pro Leu Ala Glu Arg Thr Pro Asp Thr Ala Glu Ser
225                 230                 235                 240

Leu Val Glu Lys Thr Pro Asp Glu Ala Ala Pro Leu Val Glu Arg Thr
                245                 250                 255

Pro Asp Thr Ala Glu Ser Leu Val Glu Lys Thr Pro Asp Glu Ala Ala
            260                 265                 270

Ser Leu Val Glu Gly Thr Ser Asp Lys Ile Gln Cys Leu Glu Lys Ala
        275                 280                 285

Thr Ser Gly Lys Phe Glu Gln Ser Ala Glu Glu Thr Pro Arg Glu Ile
    290                 295                 300

Thr Ser Pro Ala Lys Glu Thr Ser Glu Lys Phe Thr Trp Pro Ala Lys
305                 310                 315                 320

Gly Arg Pro Arg Lys Ile Ala Trp Glu Lys Lys Glu Asp Thr Pro Arg
                325                 330                 335

Glu Ile Met Ser Pro Ala Lys Glu Thr Ser Glu Lys Phe Thr Trp Ala
            340                 345                 350

Ala Lys Gly Arg Pro Arg Lys Ile Ala Trp Glu Lys Lys Glu Thr Pro
        355                 360                 365

Val Lys Thr Gly Cys Val Ala Arg Val Thr Ser Asn Lys Thr Lys Val
    370                 375                 380

Leu Glu Lys Gly Arg Ser Lys Met Ile Ala Cys Pro Thr Lys Glu
385                 390                 395


<210> 571
<211> 247
<212> PRT
<213> Homo sapiens

<400> 571
Met Leu Ala Val Cys His Gly Ser Ser Glu Ile Val Gly Met Leu Leu
                  5                  10                  15

Gln Gln Asn Val Asp Val Phe Ala Ala Asp Ile Cys Gly Val Thr Ala
             20                  25                  30

Glu His Tyr Ala Val Thr Cys Gly Phe His His Ile His Glu Gln Ile
         35                  40                  45

Met Glu Tyr Ile Arg Lys Leu Ser Lys Asn His Gln Asn Thr Asn Pro
     50                  55                  60
```

```
Glu Gly Thr Ser Ala Gly Thr Pro Asp Glu Ala Ala Pro Leu Ala Glu
 65                  70                  75                  80

Arg Thr Pro Asp Thr Ala Glu Ser Leu Val Glu Lys Thr Pro Asp Glu
                 85                  90                  95

Ala Ala Pro Leu Val Glu Arg Thr Pro Asp Thr Ala Glu Ser Leu Val
            100                 105                 110

Glu Lys Thr Pro Asp Glu Ala Ala Ser Leu Val Glu Gly Thr Ser Asp
        115                 120                 125

Lys Ile Gln Cys Leu Glu Lys Ala Thr Ser Gly Lys Phe Glu Gln Ser
    130                 135                 140

Ala Glu Glu Thr Pro Arg Glu Ile Thr Ser Pro Ala Lys Glu Thr Ser
145                 150                 155                 160

Glu Lys Phe Thr Trp Pro Ala Lys Gly Arg Pro Arg Lys Ile Ala Trp
                165                 170                 175

Glu Lys Lys Glu Asp Thr Pro Arg Glu Ile Met Ser Pro Ala Lys Glu
            180                 185                 190

Thr Ser Glu Lys Phe Thr Trp Ala Ala Lys Gly Arg Pro Arg Lys Ile
        195                 200                 205

Ala Trp Glu Lys Lys Glu Thr Pro Val Lys Thr Gly Cys Val Ala Arg
    210                 215                 220

Val Thr Ser Asn Lys Thr Lys Val Leu Glu Lys Gly Arg Ser Lys Met
225                 230                 235                 240

Ile Ala Cys Pro Thr Lys Glu
                245
```

<210> 572
<211> 399
<212> PRT
<213> Homo sapiens

<400> 572

```
Thr Lys Arg Lys Lys Thr Ile Asn Leu Asn Ile Gln Asp Ala Gln Lys
                  5                  10                  15

Arg Thr Ala Leu His Trp Ala Cys Val Asn Gly His Glu Glu Val Val
             20                  25                  30

Thr Phe Leu Val Asp Arg Lys Cys Gln Pro Asp Val Leu Asp Gly Glu
         35                  40                  45

His Arg Thr Pro Leu Met Lys Ala Leu Gln Cys His Gln Glu Ala Cys
```

```
     50                  55                  60

Ala Asn Ile Leu Ile Asp Ser Gly Ala Asp Ile Asn Leu Val Asp Val
 65                  70                  75                  80

Tyr Gly Asn Met Ala Leu His Tyr Ala Val Tyr Ser Glu Ile Leu Ser
                 85                  90                  95

Val Val Ala Lys Leu Leu Ser His Gly Ala Val Ile Glu Val His Asn
            100                 105                 110

Lys Ala Ser Leu Thr Pro Leu Leu Leu Ser Ile Thr Lys Arg Ser Glu
        115                 120                 125

Gln Ile Val Glu Phe Leu Leu Ile Lys Asn Ala Asn Ala Asn Ala Val
    130                 135                 140

Asn Lys Tyr Lys Cys Thr Ala Leu Met Leu Ala Val Cys His Gly Leu
145                 150                 155                 160

Ser Glu Ile Val Gly Met Leu Leu Gln Gln Asn Val Asp Val Phe Ala
                165                 170                 175

Ala Asp Ile Cys Gly Val Thr Ala Glu His Tyr Ala Val Thr Cys Gly
            180                 185                 190

Phe His His Ile His Glu Gln Ile Met Glu Tyr Ile Arg Lys Leu Ser
        195                 200                 205

Lys Asn His Gln Asn Thr Asn Pro Glu Gly Thr Ser Ala Gly Thr Pro
    210                 215                 220

Asp Glu Ala Ala Pro Leu Ala Glu Arg Thr Pro Asp Thr Ala Glu Ser
225                 230                 235                 240

Leu Val Glu Lys Thr Pro Asp Glu Ala Ala Pro Leu Val Glu Arg Thr
                245                 250                 255

Pro Asp Thr Ala Glu Ser Leu Val Glu Lys Thr Pro Asp Glu Ala Ala
            260                 265                 270

Ser Leu Val Glu Gly Thr Ser Asp Lys Ile Gln Cys Leu Glu Lys Ala
        275                 280                 285

Thr Ser Gly Lys Phe Glu Gln Ser Ala Glu Glu Thr Pro Arg Glu Ile
    290                 295                 300

Thr Ser Pro Ala Lys Glu Thr Ser Glu Lys Phe Thr Trp Pro Ala Lys
305                 310                 315                 320

Gly Arg Pro Arg Lys Ile Ala Trp Glu Lys Lys Glu Asp Thr Pro Arg
                325                 330                 335

Glu Ile Met Ser Pro Ala Lys Glu Thr Ser Glu Lys Phe Thr Trp Ala
```

```
            340                 345                 350

Ala Lys Gly Arg Pro Arg Lys Ile Ala Trp Glu Lys Lys Glu Thr Pro
        355                 360                 365

Val Lys Thr Gly Cys Val Ala Arg Val Thr Ser Asn Lys Thr Lys Val
    370                 375                 380

Leu Glu Lys Gly Arg Ser Lys Met Ile Ala Cys Pro Thr Lys Glu
385                 390                 395


<210> 573
<211> 1349
<212> PRT
<213> Homo sapiens

<400> 573
Met Gln His His His His His His His Thr Lys Arg Lys Lys Thr Ile
                  5                  10                  15

Asn Leu Asn Ile Gln Asp Ala Gln Lys Arg Thr Ala Leu His Trp Ala
             20                  25                  30

Cys Val Asn Gly His Glu Glu Val Val Thr Phe Leu Val Asp Arg Lys
         35                  40                  45

Cys Gln Pro Asp Val Leu Asp Gly Glu His Arg Thr Pro Leu Met Lys
     50                  55                  60

Ala Leu Gln Cys His Gln Glu Ala Cys Ala Asn Ile Leu Ile Asp Ser
 65                  70                  75                  80

Gly Ala Asp Ile Asn Leu Val Asp Val Tyr Gly Asn Met Ala Leu His
                 85                  90                  95

Tyr Ala Val Tyr Ser Glu Ile Leu Ser Val Val Ala Lys Leu Leu Ser
            100                 105                 110

His Gly Ala Val Ile Glu Val His Asn Lys Ala Ser Leu Thr Pro Leu
        115                 120                 125

Leu Leu Ser Ile Thr Lys Arg Ser Glu Gln Ile Val Glu Phe Leu Leu
    130                 135                 140

Ile Lys Asn Ala Asn Ala Asn Ala Val Asn Lys Tyr Lys Cys Thr Ala
145                 150                 155                 160

Leu Met Leu Ala Val Cys His Gly Leu Ser Glu Ile Val Gly Met Leu
                165                 170                 175

Leu Gln Gln Asn Val Asp Val Phe Ala Ala Asp Ile Cys Gly Val Thr
            180                 185                 190
```

```
Ala Glu His Tyr Ala Val Thr Cys Gly Phe His His Ile His Glu Gln
        195                 200                 205

Ile Met Glu Tyr Ile Arg Lys Leu Ser Lys Asn His Gln Asn Thr Asn
    210                 215                 220

Pro Glu Gly Thr Ser Ala Gly Thr Pro Asp Glu Ala Ala Pro Leu Ala
225                 230                 235                 240

Glu Arg Thr Pro Asp Thr Ala Glu Ser Leu Val Glu Lys Thr Pro Asp
                245                 250                 255

Glu Ala Ala Pro Leu Val Glu Arg Thr Pro Asp Thr Ala Glu Ser Leu
            260                 265                 270

Val Glu Lys Thr Pro Asp Glu Ala Ala Ser Leu Val Glu Gly Thr Ser
        275                 280                 285

Asp Lys Ile Gln Cys Leu Glu Lys Ala Thr Ser Gly Lys Phe Glu Gln
    290                 295                 300

Ser Ala Glu Glu Thr Pro Arg Glu Ile Thr Ser Pro Ala Lys Glu Thr
305                 310                 315                 320

Ser Glu Lys Phe Thr Trp Pro Ala Lys Gly Arg Pro Arg Lys Ile Ala
                325                 330                 335

Trp Glu Lys Lys Glu Asp Thr Pro Arg Glu Ile Met Ser Pro Ala Lys
            340                 345                 350

Glu Thr Ser Glu Lys Phe Thr Trp Ala Ala Lys Gly Arg Pro Arg Lys
        355                 360                 365

Ile Ala Trp Glu Lys Lys Glu Thr Pro Val Lys Thr Gly Cys Val Ala
    370                 375                 380

Arg Val Thr Ser Asn Lys Thr Lys Val Leu Glu Lys Gly Arg Ser Lys
385                 390                 395                 400

Met Ile Ala Cys Pro Thr Lys Glu Ser Ser Thr Lys Ala Ser Ala Asn
                405                 410                 415

Asp Gln Arg Phe Pro Ser Glu Ser Lys Gln Glu Glu Asp Glu Glu Tyr
            420                 425                 430

Ser Cys Asp Ser Arg Ser Leu Phe Glu Ser Ser Ala Lys Ile Gln Val
        435                 440                 445

Cys Ile Pro Glu Ser Ile Tyr Gln Lys Val Met Glu Ile Asn Arg Glu
    450                 455                 460

Val Glu Glu Pro Pro Lys Lys Pro Ser Ala Phe Lys Pro Ala Ile Glu
465                 470                 475                 480
```

Met Gln Asn Ser Val Pro Asn Lys Ala Phe Glu Leu Lys Asn Glu Gln
485 490 495

Thr Leu Arg Ala Asp Pro Met Phe Pro Pro Glu Ser Lys Gln Lys Asp
500 505 510

Tyr Glu Glu Asn Ser Trp Asp Ser Glu Ser Leu Cys Glu Thr Val Ser
515 520 525

Gln Lys Asp Val Cys Leu Pro Lys Ala Thr His Gln Lys Glu Ile Asp
530 535 540

Lys Ile Asn Gly Lys Leu Glu Glu Ser Pro Asn Lys Asp Gly Leu Leu
545 550 555 560

Lys Ala Thr Cys Gly Met Lys Val Ser Ile Pro Thr Lys Ala Leu Glu
565 570 575

Leu Lys Asp Met Gln Thr Phe Lys Ala Glu Pro Pro Gly Lys Pro Ser
580 585 590

Ala Phe Glu Pro Ala Thr Glu Met Gln Lys Ser Val Pro Asn Lys Ala
595 600 605

Leu Glu Leu Lys Asn Glu Gln Thr Trp Arg Ala Asp Glu Ile Leu Pro
610 615 620

Ser Glu Ser Lys Gln Lys Asp Tyr Glu Glu Asn Ser Trp Asp Thr Glu
625 630 635 640

Ser Leu Cys Glu Thr Val Ser Gln Lys Asp Val Cys Leu Pro Lys Ala
645 650 655

Ala His Gln Lys Glu Ile Asp Lys Ile Asn Gly Lys Leu Glu Gly Ser
660 665 670

Pro Val Lys Asp Gly Leu Leu Lys Ala Asn Cys Gly Met Lys Val Ser
675 680 685

Ile Pro Thr Lys Ala Leu Glu Leu Met Asp Met Gln Thr Phe Lys Ala
690 695 700

Glu Pro Pro Glu Lys Pro Ser Ala Phe Glu Pro Ala Ile Glu Met Gln
705 710 715 720

Lys Ser Val Pro Asn Lys Ala Leu Glu Leu Lys Asn Glu Gln Thr Leu
725 730 735

Arg Ala Asp Glu Ile Leu Pro Ser Glu Ser Lys Gln Lys Asp Tyr Glu
740 745 750

Glu Ser Ser Trp Asp Ser Glu Ser Leu Cys Glu Thr Val Ser Gln Lys
755 760 765

Asp Val Cys Leu Pro Lys Ala Thr His Gln Lys Glu Ile Asp Lys Ile
770 775 780

Asn Gly Lys Leu Glu Glu Ser Pro Asp Asn Asp Gly Phe Leu Lys Ala
785 790 795 800

Pro Cys Arg Met Lys Val Ser Ile Pro Thr Lys Ala Leu Glu Leu Met
805 810 815

Asp Met Gln Thr Phe Lys Ala Glu Pro Pro Glu Lys Pro Ser Ala Phe
820 825 830

Glu Pro Ala Ile Glu Met Gln Lys Ser Val Pro Asn Lys Ala Leu Glu
835 840 845

Leu Lys Asn Glu Gln Thr Leu Arg Ala Asp Gln Met Phe Pro Ser Glu
850 855 860

Ser Lys Gln Lys Lys Val Glu Glu Asn Ser Trp Asp Ser Glu Ser Leu
865 870 875 880

Arg Glu Thr Val Ser Gln Lys Asp Val Cys Val Pro Lys Ala Thr His
885 890 895

Gln Lys Glu Met Asp Lys Ile Ser Gly Lys Leu Glu Asp Ser Thr Ser
900 905 910

Leu Ser Lys Ile Leu Asp Thr Val His Ser Cys Glu Arg Ala Arg Glu
915 920 925

Leu Gln Lys Asp His Cys Glu Gln Arg Thr Gly Lys Met Glu Gln Met
930 935 940

Lys Lys Lys Phe Cys Val Leu Lys Lys Lys Leu Ser Glu Ala Lys Glu
945 950 955 960

Ile Lys Ser Gln Leu Glu Asn Gln Lys Val Lys Trp Glu Gln Glu Leu
965 970 975

Cys Ser Val Arg Leu Thr Leu Asn Gln Glu Glu Glu Lys Arg Arg Asn
980 985 990

Ala Asp Ile Leu Asn Glu Lys Ile Arg Glu Glu Leu Gly Arg Ile Glu
995 1000 1005

Glu Gln His Arg Lys Glu Leu Glu Val Lys Gln Gln Leu Glu Gln Ala
1010 1015 1020

Leu Arg Ile Gln Asp Ile Glu Leu Lys Ser Val Glu Ser Asn Leu Asn
1025 1030 1035 1040

Gln Val Ser His Thr His Glu Asn Glu Asn Tyr Leu Leu His Glu Asn
1045 1050 1055

```
Cys Met Leu Lys Lys Glu Ile Ala Met Leu Lys Leu Glu Ile Ala Thr
            1060                1065                1070

Leu Lys His Gln Tyr Gln Glu Lys Glu Asn Lys Tyr Phe Glu Asp Ile
        1075                1080                1085

Lys Ile Leu Lys Glu Lys Asn Ala Glu Leu Gln Met Thr Leu Lys Leu
    1090                1095                1100

Lys Glu Glu Ser Leu Thr Lys Arg Ala Ser Gln Tyr Ser Gly Gln Leu
1105                1110                1115                1120

Lys Val Leu Ile Ala Glu Asn Thr Met Leu Thr Ser Lys Leu Lys Glu
                1125                1130                1135

Lys Gln Asp Lys Glu Ile Leu Glu Ala Glu Ile Glu Ser His His Pro
            1140                1145                1150

Arg Leu Ala Ser Ala Val Gln Asp His Asp Gln Ile Val Thr Ser Arg
        1155                1160                1165

Lys Ser Gln Glu Pro Ala Phe His Ile Ala Gly Asp Ala Cys Leu Gln
    1170                1175                1180

Arg Lys Met Asn Val Asp Val Ser Ser Thr Ile Tyr Asn Asn Glu Val
1185                1190                1195                1200

Leu His Gln Pro Leu Ser Glu Ala Gln Arg Lys Ser Lys Ser Leu Lys
                1205                1210                1215

Ile Asn Leu Asn Tyr Ala Gly Asp Ala Leu Arg Glu Asn Thr Leu Val
            1220                1225                1230

Ser Glu His Ala Gln Arg Asp Gln Arg Glu Thr Gln Cys Gln Met Lys
        1235                1240                1245

Glu Ala Glu His Met Tyr Gln Asn Glu Gln Asp Asn Val Asn Lys His
    1250                1255                1260

Thr Glu Gln Gln Glu Ser Leu Asp Gln Lys Leu Phe Gln Leu Gln Ser
1265                1270                1275                1280

Lys Asn Met Trp Leu Gln Gln Gln Leu Val His Ala His Lys Lys Ala
                1285                1290                1295

Asp Asn Lys Ser Lys Ile Thr Ile Asp Ile His Phe Leu Glu Arg Lys
            1300                1305                1310

Met Gln His His Leu Leu Lys Glu Lys Asn Glu Glu Ile Phe Asn Tyr
        1315                1320                1325

Asn Asn His Leu Lys Asn Arg Ile Tyr Gln Tyr Glu Lys Glu Lys Ala
    1330                1335                1340
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Glu Thr Glu Val Ile
1345

<210> 574
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 574
cacacaaaga ggaagaagac catc 24

<210> 575
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 575
gattcttttg taggacatgc aatcatc 27

<210> 576
<211> 3720
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 1149
<223> n = A,T,C or G

<400> 576
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acaccccttt tactggccat acagaaaaga agcaagcaaa ctgtggaatt tttactaaca 120
aaaaatgcaa atgcaaacgc atttaatgag tctaaatgca cagccctcat gcttgccata 180
tgtgaaggct catcagagat agtcggcatg cttcttcagc aaaatgttga cgtctttgct 240
gaagacatac atggaataac tgcagaacgt tatgctgctg ctcgtggagt taattacatt 300
catcaacaac ttttggaaca tatacgaaaa ttacctaaaa atcctcaaaa taccaatcca 360
gaaggaacat ctacaggaac acctgatgag gctgcaccct tggcggaaag aacacctgac 420
acggctgaaa gcttgctgga aaaaacacct gacgaggctg cacgcttggt ggagggaacg 480
tctgccaaaa ttcaatgtct ggggaaagca acatctggaa agtttgaaca gtcaacagaa 540
gaaacaccta ggaaaatttt gaggcctaca aaagaaacat ctgagaaatt ttcatggcca 600
gcaaaagaaa gatctaggaa gatcacatgg gaggaaaaag aaacatctgt aaagactgaa 660
tgcgtggcag gagtaacacc taataaaact gaagttttgg aaaaaggaac atctaatatg 720
attgcatgtc ctacaaaaga aacatctaca aaagcaagta caaatgtgga tgtgagttct 780
gtagagccta tattcagtct ttttggcaca cggactattg aaaattcaca gtgtacaaaa 840

```
gttgaggaag actttaatct tgctaccaag attatctcta agagtgctgc acagaattat 900
acgtgtttac ctgatgctac atatcaaaaa gatatcaaaa caataaatca caaaatagaa 960
gatcagatgt tcccatcaga atccaaacga gaggaagatg aagaatattc ttgggattct 1020
gggagtctct ttgagagttc tgcaaagact caagtgtgta tacctgagtc tatgtatcag 1080
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cctgccgtng aaatgcaaaa gactgttcca aataaagcct ttgaattgaa gaatgaacaa 1200
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gatggtcttc tgaagcctac ctgtggaagg aaagtttctc ttccaaataa agccttagaa 1440
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gataccttaa gtggaaaatt agaagagtct cctgataaag atggtcttct gaagcctacc 1860
tgtggaatga aaatttctct tccaaataaa gccttagaat tgaaggacag agaaacattc 1920
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agaatacaag atatagaatt gaaaagtgta acaagtaatt tgaatcaggt ttctcacact 2760
catgaaagtg aaaatgatct ctttcatgaa aattgcatgt tgaaaaagga aattgccatg 2820
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ctaagagaaa atgcattggt ttcagaacat gcacaaagag accgatgtga aacacagtgt 3360
caaatgaaga aagctgaaca catgtatcaa aatgaacaag ataatgtgga caaacacact 3420
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cgacagcaat tagtttatgc acataagaaa gttaacaaaa gcaaggtaac aattaatatt 3540
cagtttcctg agatgaaaat gcaacgtcat ctaaaagaga aaaatgagga ggtattcaat 3600
tatggtaacc atttaaaaga acgtatagat caatatgaaa aagagaaagc agaaagagaa 3660
gtaagtatca aaaaatataa atacttttca aacttcctga aagaaagtgg ccttggctaa 3720
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<210> 577
<211> 1239
<212> PRT
<213> Homo sapiens

```
<400> 577
Met Val Ala Thr Leu Leu Ser Tyr Gly Ala Val Ile Glu Val Gln Asn
                5                   10                  15

Lys Ala Ser Leu Thr Pro Leu Leu Leu Ala Ile Gln Lys Arg Ser Lys
            20                  25                  30

Gln Thr Val Glu Phe Leu Leu Thr Lys Asn Ala Asn Ala Asn Ala Phe
        35                  40                  45

Asn Glu Ser Lys Cys Thr Ala Leu Met Leu Ala Ile Cys Glu Gly Ser
    50                  55                  60

Ser Glu Ile Val Gly Met Leu Leu Gln Gln Asn Val Asp Val Phe Ala
65                  70                  75                  80

Glu Asp Ile His Gly Ile Thr Ala Glu Arg Tyr Ala Ala Ala Arg Gly
                85                  90                  95

Val Asn Tyr Ile His Gln Gln Leu Leu Glu His Ile Arg Lys Leu Pro
            100                 105                 110

Lys Asn Pro Gln Asn Thr Asn Pro Glu Gly Thr Ser Thr Gly Thr Pro
        115                 120                 125

Asp Glu Ala Ala Pro Leu Ala Glu Arg Thr Pro Asp Thr Ala Glu Ser
    130                 135                 140

Leu Leu Glu Lys Thr Pro Asp Glu Ala Ala Arg Leu Val Glu Gly Thr
145                 150                 155                 160

Ser Ala Lys Ile Gln Cys Leu Gly Lys Ala Thr Ser Gly Lys Phe Glu
                165                 170                 175

Gln Ser Thr Glu Glu Thr Pro Arg Lys Ile Leu Arg Pro Thr Lys Glu
            180                 185                 190

Thr Ser Glu Lys Phe Ser Trp Pro Ala Lys Glu Arg Ser Arg Lys Ile
        195                 200                 205

Thr Trp Glu Glu Lys Glu Thr Ser Val Lys Thr Glu Cys Val Ala Gly
    210                 215                 220

Val Thr Pro Asn Lys Thr Glu Val Leu Glu Lys Gly Thr Ser Asn Met
225                 230                 235                 240

Ile Ala Cys Pro Thr Lys Glu Thr Ser Thr Lys Ala Ser Thr Asn Val
                245                 250                 255

Asp Val Ser Ser Val Glu Pro Ile Phe Ser Leu Phe Gly Thr Arg Thr
            260                 265                 270

Ile Glu Asn Ser Gln Cys Thr Lys Val Glu Glu Asp Phe Asn Leu Ala
        275                 280                 285
```

```
Thr Lys Ile Ile Ser Lys Ser Ala Ala Gln Asn Tyr Thr Cys Leu Pro
    290                 295                 300

Asp Ala Thr Tyr Gln Lys Asp Ile Lys Thr Ile Asn His Lys Ile Glu
305                 310                 315                 320

Asp Gln Met Phe Pro Ser Glu Ser Lys Arg Glu Glu Asp Glu Glu Tyr
                325                 330                 335

Ser Trp Asp Ser Gly Ser Leu Phe Glu Ser Ser Ala Lys Thr Gln Val
            340                 345                 350

Cys Ile Pro Glu Ser Met Tyr Gln Lys Val Met Glu Ile Asn Arg Glu
        355                 360                 365

Val Glu Glu Leu Pro Glu Lys Pro Ser Ala Phe Lys Pro Ala Val Glu
    370                 375                 380

Met Gln Lys Thr Val Pro Asn Lys Ala Phe Glu Leu Lys Asn Glu Gln
385                 390                 395                 400

Thr Leu Arg Ala Ala Gln Met Phe Pro Ser Glu Ser Lys Gln Lys Asp
                405                 410                 415

Asp Glu Glu Asn Ser Trp Asp Ser Glu Ser Pro Cys Glu Thr Val Ser
            420                 425                 430

Gln Lys Asp Val Tyr Leu Pro Lys Ala Thr His Gln Lys Glu Phe Asp
        435                 440                 445

Thr Leu Ser Gly Lys Leu Glu Glu Ser Pro Val Lys Asp Gly Leu Leu
    450                 455                 460

Lys Pro Thr Cys Gly Arg Lys Val Ser Leu Pro Asn Lys Ala Leu Glu
465                 470                 475                 480

Leu Lys Asp Arg Glu Thr Phe Lys Ala Glu Ser Pro Asp Lys Asp Gly
                485                 490                 495

Leu Leu Lys Pro Thr Cys Gly Arg Lys Val Ser Leu Pro Asn Lys Ala
            500                 505                 510

Leu Glu Leu Lys Asp Arg Glu Thr Leu Lys Ala Glu Ser Pro Asp Asn
        515                 520                 525

Asp Gly Leu Leu Lys Pro Thr Cys Gly Arg Lys Val Ser Leu Pro Asn
    530                 535                 540

Lys Ala Leu Glu Leu Lys Asp Arg Glu Thr Phe Lys Ala Ala Gln Met
545                 550                 555                 560

Phe Pro Ser Glu Ser Lys Gln Lys Asp Asp Glu Glu Asn Ser Trp Asp
                565                 570                 575
```

Phe Glu Ser Phe Leu Glu Thr Leu Leu Gln Asn Asp Val Cys Leu Pro
580 585 590

Lys Ala Thr His Gln Lys Glu Phe Asp Thr Leu Ser Gly Lys Leu Glu
595 600 605

Glu Ser Pro Asp Lys Asp Gly Leu Leu Lys Pro Thr Cys Gly Met Lys
610 615 620

Ile Ser Leu Pro Asn Lys Ala Leu Glu Leu Lys Asp Arg Glu Thr Phe
625 630 635 640

Lys Ala Glu Asp Val Ser Ser Val Glu Ser Thr Phe Ser Leu Phe Gly
645 650 655

Lys Pro Thr Thr Glu Asn Ser Gln Ser Thr Lys Val Glu Glu Asp Phe
660 665 670

Asn Leu Thr Thr Lys Glu Gly Ala Thr Lys Thr Val Thr Gly Gln Gln
675 680 685

Glu Arg Asp Ile Gly Ile Ile Glu Arg Ala Pro Gln Asp Gln Thr Asn
690 695 700

Lys Met Pro Thr Ser Glu Leu Gly Arg Lys Glu Asp Thr Lys Ser Thr
705 710 715 720

Ser Asp Ser Glu Ile Ile Ser Val Ser Asp Thr Gln Asn Tyr Glu Cys
725 730 735

Leu Pro Glu Ala Thr Tyr Gln Lys Glu Ile Lys Thr Thr Asn Gly Lys
740 745 750

Ile Glu Glu Ser Pro Glu Lys Pro Ser His Phe Glu Pro Ala Thr Glu
755 760 765

Met Gln Asn Ser Val Pro Asn Lys Gly Leu Glu Trp Lys Asn Lys Gln
770 775 780

Thr Leu Arg Ala Asp Ser Thr Thr Leu Ser Lys Ile Leu Asp Ala Leu
785 790 795 800

Pro Ser Cys Glu Arg Gly Arg Glu Leu Lys Lys Asp Asn Cys Glu Gln
805 810 815

Ile Thr Ala Lys Met Glu Gln Met Lys Asn Lys Phe Cys Val Leu Gln
820 825 830

Lys Glu Leu Ser Glu Ala Lys Glu Ile Lys Ser Gln Leu Glu Asn Gln
835 840 845

Lys Ala Lys Trp Glu Gln Glu Leu Cys Ser Val Arg Leu Pro Leu Asn
850 855 860

Gln Glu Glu Glu Lys Arg Arg Asn Val Asp Ile Leu Lys Glu Lys Ile
865 870 875 880

Arg Pro Glu Glu Gln Leu Arg Lys Lys Leu Glu Val Lys His Gln Leu
885 890 895

Glu Gln Thr Leu Arg Ile Gln Asp Ile Glu Leu Lys Ser Val Thr Ser
900 905 910

Asn Leu Asn Gln Val Ser His Thr His Glu Ser Glu Asn Asp Leu Phe
915 920 925

His Glu Asn Cys Met Leu Lys Lys Glu Ile Ala Met Leu Lys Leu Glu
930 935 940

Val Ala Thr Leu Lys His Gln His Gln Val Lys Glu Asn Lys Tyr Phe
945 950 955 960

Glu Asp Ile Lys Ile Leu Gln Glu Lys Asn Ala Glu Leu Gln Met Thr
965 970 975

Leu Lys Leu Lys Gln Lys Thr Val Thr Lys Arg Ala Ser Gln Tyr Arg
980 985 990

Glu Gln Leu Lys Val Leu Thr Ala Glu Asn Thr Met Leu Thr Ser Lys
995 1000 1005

Leu Lys Glu Lys Gln Asp Lys Glu Ile Leu Glu Thr Glu Ile Glu Ser
1010 1015 1020

His His Pro Arg Leu Ala Ser Ala Leu Gln Asp His Asp Gln Ser Val
1025 1030 1035 1040

Thr Ser Arg Lys Asn Gln Glu Leu Ala Phe His Ser Ala Gly Asp Ala
1045 1050 1055

Pro Leu Gln Gly Ile Met Asn Val Asp Val Ser Asn Thr Ile Tyr Asn
1060 1065 1070

Asn Glu Val Leu His Gln Pro Leu Tyr Glu Ala Gln Arg Lys Ser Lys
1075 1080 1085

Ser Pro Lys Ile Asn Leu Asn Tyr Ala Gly Asp Asp Leu Arg Glu Asn
1090 1095 1100

Ala Leu Val Ser Glu His Ala Gln Arg Asp Arg Cys Glu Thr Gln Cys
1105 1110 1115 1120

Gln Met Lys Lys Ala Glu His Met Tyr Gln Asn Glu Gln Asp Asn Val
1125 1130 1135

Asp Lys His Thr Glu Gln Gln Glu Ser Leu Glu Gln Lys Leu Phe Gln
1140 1145 1150

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Leu Glu Ser Lys Asn Arg Trp Leu Arg Gln Gln Leu Val Tyr Ala His
        1155                1160                1165

Lys Lys Val Asn Lys Ser Lys Val Thr Ile Asn Ile Gln Phe Pro Glu
    1170                1175                1180

Met Lys Met Gln Arg His Leu Lys Glu Lys Asn Glu Glu Val Phe Asn
1185                1190                1195                1200

Tyr Gly Asn His Leu Lys Glu Arg Ile Asp Gln Tyr Glu Lys Glu Lys
                1205                1210                1215

Ala Glu Arg Glu Val Ser Ile Lys Lys Tyr Lys Tyr Phe Ser Asn Phe
            1220                1225                1230

Leu Lys Glu Ser Gly Leu Gly
        1235
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<210> 578
<211> 20
<212> PRT
<213> Homo sapiens

<400> 578

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Lys Asn Glu Glu Ile Phe Asn Tyr Asn Asn His Leu Lys Asn Arg Ile
                  5                  10                  15

Tyr Gln Tyr Glu
             20
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<210> 579
<211> 20
<212> PRT
<213> Homo sapiens

<400> 579

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Glu Gln Asp Asn Val Asn Lys His Thr Glu Gln Gln Glu Ser Leu Asp
                  5                  10                  15

Gln Lys Leu Phe
             20
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<210> 580
<211> 20
<212> PRT
<213> Homo sapiens

<400> 580

Thr Glu Gln Gln Glu Ser Leu Asp Gln Lys Leu Phe Gln Leu Gln Ser
5 10 15

Lys Asn Met Trp
20

<210> 581
<211> 20
<212> PRT
<213> Homo sapiens

<400> 581
Lys Glu Glu Ser Leu Thr Lys Arg Ala Ser Gln Tyr Ser Gly Gln Leu
5 10 15

Lys Val Leu Ile
20

<210> 582
<211> 20
<212> PRT
<213> Homo sapiens

<400> 582
Ile Ala Gly Asp Ala Cys Leu Gln Arg Lys Met Asn Val Asp Val Ser
5 10 15

Ser Thr Ile Tyr
20

<210> 583
<211> 20
<212> PRT
<213> Homo sapiens

<400> 583
Arg Lys Met Asn Val Asp Val Ser Ser Thr Ile Tyr Asn Asn Glu Val
5 10 15

Leu His Gln Pro
20

<210> 584
<211> 20
<212> PRT
<213> Homo sapiens

<400> 584
Met Gly Thr Arg Ala Leu Gln Cys Glu Val Ser His Thr His Glu Asn
5 10 15

Glu Asn Tyr Leu
20

<210> 585
<211> 20
<212> PRT
<213> Homo sapiens

<400> 585
Glu Val Ser His Thr His Glu Asn Glu Asn Tyr Leu Leu His Glu Asn
5 10 15

Cys Met Leu Lys
20

<210> 586
<211> 20
<212> PRT
<213> Homo sapiens

<400> 586
Glu Asn Tyr Leu Leu His Glu Asn Leu Met Leu Lys Lys Glu Ile Ala
5 10 15

Met Leu Lys Leu
20

<210> 587
<211> 21
<212> PRT
<213> Homo sapiens

<400> 587
Asn Cys Met Leu Lys Lys Glu Ile Ala Met Leu Lys Leu Glu Ile Ala
5 10 15

Thr Leu Lys His Gln
20

<210> 588
<211> 20
<212> PRT
<213> Homo sapiens

<400> 588
Met Leu Thr Ser Lys Leu Lys Glu Lys Gln Asp Lys Glu Ile Leu Glu
5 10 15

Ala Glu Ile Glu

20

<210> 589
<211> 20
<212> PRT
<213> Homo sapiens

<400> 589
Lys Gln Asp Lys Glu Ile Leu Glu Ala Glu Ile Glu Ser His His Pro
5 10 15

Arg Leu Ala Ser
20

<210> 590
<211> 20
<212> PRT
<213> Homo sapiens

<400> 590
Ala Glu Ile Glu Ser His His Pro Arg Leu Ala Ser Ala Val Gln Asp
5 10 15

His Asp Gln Ile
20

<210> 591
<211> 20
<212> PRT
<213> Homo sapiens

<400> 591
Arg Leu Ala Ser Ala Val Gln Asp His Asp Gln Ile Val Thr Ser Arg
5 10 15

Lys Ser Gln Glu
20

<210> 592
<211> 20
<212> PRT
<213> Homo sapiens

<400> 592
His Asp Gln Ile Val Thr Ser Arg Lys Ser Gln Glu Pro Ala Phe His
5 10 15

Ile Ala Gly Asp
20

<210> 593
<211> 20
<212> PRT
<213> Homo sapiens

<400> 593
Lys Ser Gln Glu Pro Ala Phe His Ile Ala Gly Asp Ala Cys Leu Gln
5 10 15

Arg Lys Met Asn
20

<210> 594
<211> 20
<212> PRT
<213> Homo sapiens

<400> 594
Met Gly Thr Arg Ala Leu Gln Cys Glu Val Ser His Thr His Glu Asn
1 5 10 15
Glu Asn Tyr Leu
20

<210> 595
<211> 20
<212> PRT
<213> Homo sapiens

<400> 595
Ser His Thr His Glu Asn Glu Asn Tyr Leu Leu His Glu Asn Cys Met
1 5 10 15
Leu Lys Lys Glu
20

<210> 596
<211> 20
<212> PRT
<213> Homo sapiens

<400> 596
Leu His Glu Asn Cys Met Leu Lys Lys Glu Ile Ala Met Leu Lys Leu
1 5 10 15
Glu Ile Ala Thr
20

<210> 597
<211> 20
<212> PRT

<213> Homo sapiens

<400> 597
Ile Ala Met Leu Lys Leu Glu Ile Ala Thr Leu Lys His Gln Tyr Gln
 1   5   10   15
Glu Lys Glu Asn
            20

<210> 598
<211> 20
<212> PRT
<213> Homo sapiens

<400> 598
Leu Lys His Gln Tyr Gln Glu Lys Glu Asn Lys Tyr Phe Glu Asp Ile
 1   5   10   15
Lys Ile Leu Lys
            20

<210> 599
<211> 20
<212> PRT
<213> Homo sapiens

<400> 599
Lys Tyr Phe Glu Asp Ile Lys Ile Leu Lys Glu Lys Asn Ala Glu Leu
 1   5   10   15
Gln Met Thr Leu
            20

<210> 600
<211> 20
<212> PRT
<213> Homo sapiens

<400> 600
Glu Lys Asn Ala Glu Leu Gln Met Thr Leu Lys Leu Lys Glu Glu Ser
 1   5   10   15
Leu Thr Lys Arg
            20

<210> 601
<211> 20
<212> PRT
<213> Homo sapiens

<400> 601
Lys Leu Lys Glu Glu Ser Leu Thr Lys Arg Ala Ser Gln Tyr Ser Gly
 1   5   10   15
Gln Leu Lys Val

20

<210> 602
<211> 20
<212> PRT
<213> Homo sapiens

<400> 602
Ala Ser Gln Tyr Ser Gly Gln Leu Lys Val Leu Ile Ala Glu Asn Thr
1 5 10 15
Met Leu Thr Ser
20

<210> 603
<211> 20
<212> PRT
<213> Homo sapiens

<400> 603
Leu Ile Ala Glu Asn Thr Met Leu Thr Ser Lys Leu Lys Glu Lys Gln
1 5 10 15
Asp Lys Glu Ile
20

<210> 604
<211> 20
<212> PRT
<213> Homo sapiens

<400> 604
Lys Leu Lys Glu Lys Gln Asp Lys Glu Ile Leu Glu Ala Glu Ile Glu
1 5 10 15
Ser His His Pro
20

<210> 605
<211> 20
<212> PRT
<213> Homo sapiens

<400> 605
Leu Glu Ala Glu Ile Glu Ser His His Pro Arg Leu Ala Ser Ala Val
1 5 10 15
Gln Asp His Asp
20

<210> 606
<211> 20
<212> PRT

<213> Homo sapiens

<400> 606
Arg Leu Ala Ser Ala Val Gln Asp His Asp Gln Ile Val Thr Ser Arg
 1   5   10   15
Lys Ser Gln Glu
            20

<210> 607
<211> 22
<212> PRT
<213> Homo sapiens

<400> 607
Asp Gln Ile Val Thr Ser Arg Lys Ser Gln Glu Pro Ala Phe His Ile
 1   5   10   15
Ala Gly Asp Ala Cys Leu
            20

<210> 608
<211> 20
<212> PRT
<213> Homo sapiens

<400> 608
Pro Ala Phe His Ile Ala Gly Asp Ala Cys Leu Gln Arg Lys Met Asn
 1   5   10   15
Val Asp Val Ser
            20

<210> 609
<211> 20
<212> PRT
<213> Homo sapiens

<400> 609
Leu Gln Arg Lys Met Asn Val Asp Val Ser Ser Thr Ile Tyr Asn Asn
 1   5   10   15
Glu Val Leu His
            20

<210> 610
<211> 20
<212> PRT
<213> Homo sapiens

<400> 610
Ser Thr Ile Tyr Asn Asn Glu Val Leu His Gln Pro Leu Ser Glu Ala
 1   5   10   15
Gln Arg Lys Ser

20

<210> 611
<211> 21
<212> PRT
<213> Homo sapiens

<400> 611
His Gln Pro Leu Ser Glu Ala Gln Arg Lys Ser Lys Ser Leu Lys Ile
1 5 10 15
Asn Leu Asn Tyr Ala
20

<210> 612
<211> 20
<212> PRT
<213> Homo sapiens

<400> 612
Lys Ser Leu Lys Ile Asn Leu Asn Tyr Ala Gly Asp Ala Leu Arg Glu
1 5 10 15
Asn Thr Leu Val
20

<210> 613
<211> 20
<212> PRT
<213> Homo sapiens

<400> 613
Gly Asp Ala Leu Arg Glu Asn Thr Leu Val Ser Glu His Ala Gln Arg
1 5 10 15
Asp Gln Arg Glu
20

<210> 614
<211> 20
<212> PRT
<213> Homo sapiens

<400> 614
Ser Glu His Ala Gln Arg Asp Gln Arg Glu Thr Gln Cys Gln Met Lys
1 5 10 15
Glu Ala Glu His
20

<210> 615
<211> 20
<212> PRT

<213> Homo sapiens

<400> 615
Thr Gln Cys Gln Met Lys Glu Ala Glu His Met Tyr Gln Asn Glu Gln
 1   5   10   15
Asp Asn Val Asn
            20

<210> 616
<211> 20
<212> PRT
<213> Homo sapiens

<400> 616
Met Tyr Gln Asn Glu Gln Asp Asn Val Asn Lys His Thr Glu Gln Gln
 1   5   10   15
Glu Ser Leu Asp
            20

<210> 617
<211> 20
<212> PRT
<213> Homo sapiens

<400> 617
Lys His Thr Glu Gln Gln Glu Ser Leu Asp Gln Lys Leu Phe Gln Leu
 1   5   10   15
Gln Ser Lys Asn
            20

<210> 618
<211> 21
<212> PRT
<213> Homo sapiens

<400> 618
Asp Gln Lys Leu Phe Gln Leu Gln Ser Lys Asn Met Trp Leu Gln Gln
 1   5   10   15
Gln Leu Val His Ala
            20

<210> 619
<211> 20
<212> PRT
<213> Homo sapiens

<400> 619
Met Trp Leu Gln Gln Gln Leu Val His Ala His Lys Lys Ala Asp Asn
 1   5   10   15
Lys Ser Lys Ile
            20

<210> 620
<211> 20
<212> PRT
<213> Homo sapiens

<400> 620
His Lys Lys Ala Asp Asn Lys Ser Lys Ile Thr Ile Asp Ile His Phe
 1   5   10   15
Leu Glu Arg Lys
            20

<210> 621
<211> 20
<212> PRT
<213> Homo sapiens

<400> 621
Thr Ile Asp Ile His Phe Leu Glu Arg Lys Met Gln His His Leu Leu
 1   5   10   15
Lys Glu Lys Asn
            20

<210> 622
<211> 20
<212> PRT
<213> Homo sapiens

<400> 622
Met Gln His His Leu Leu Lys Glu Lys Asn Glu Glu Ile Phe Asn Tyr
 1   5   10   15
Asn Asn His Leu
            20

<210> 623
<211> 20
<212> PRT
<213> Homo sapiens

<400> 623
Glu Glu Ile Phe Asn Tyr Asn Asn His Leu Lys Asn Arg Ile Tyr Gln
 1   5   10   15
Tyr Glu Lys Glu
            20

<210> 624
<211> 20
<212> PRT
<213> Homo sapiens

<400> 624
Asn His Leu Lys Asn Arg Ile Tyr Gln Tyr Glu Lys Glu Lys Ala Glu
1 5 10 15
Thr Glu Val Ile
20

<210> 625
<211> 27
<212> PRT
<213> Homo sapiens

<400> 625
Leu Thr Leu Asn Gln Glu Glu Glu Lys Arg Arg Asn Ala Asp Ile Leu
1 5 10 15
Asn Glu Lys Ile Arg Glu Glu Leu Gly Cys Gly
20 25

<210> 626
<211> 29
<212> PRT
<213> Homo sapiens

<400> 626
Ile Arg Glu Glu Leu Gly Arg Ile Glu Glu Gln His Arg Lys Glu Leu
1 5 10 15
Glu Val Lys Gln Gln Leu Glu Gln Ala Leu Gly Cys Gly
20 25

<210> 627
<211> 24
<212> PRT
<213> Homo sapiens

<400> 627
Leu Glu Gln Ala Leu Arg Ile Gln Asp Ile Glu Leu Lys Ser Val Glu
1 5 10 15
Ser Asn Leu Asn Gln Gly Cys Gly
20